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Original Articles.

THE TREATMENT OF TUBERCULAR GLANDS OF THE NECK.*

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DENVER.

In Colorado everything pertaining to tuberculosis is of such importance that I have no hesitation in presenting this subject for your consideration, particularly as it has not been previously discussed in this society—so far as I am aware.

GENERAL CONSIDERATIONS.

The neck, as a whole, contains several hundred lymph glands, some of them superficial and some deep. Although their distribution is general, they exist principally in definite groups. Certain of these groups are particularly liable to tubercular disease, owing to their close connection with the entrance points of infection, such as the tonsils, teeth and pharynx. Chronic otitis, eczema of the scalp, ophthalmia, and various nasal troubles are also sources of infection, while in isolated instances germs may be deposited from the blood or ascend from the bronchial lymphatics.

It is a progressive disease, one gland sooner or later infecting others, a point of importance in selecting a rational form of treatment. The nodes most frequently affected are those in the submaxillary region and those lying along the internal jugular vein, in front of, behind and beneath the sterno-mastoid muscle. The submental and parotid regions are at times implicated, as well as the areas in the vicinity of the mastoid and above the clavicle. Towards the back of the neck infection is less frequent. The seriousness of tuberculosis of the cervical lymphatic system is generally underestimated. Chronic swellings in the neck are so common that they are not given the attention they deserve. To be sure, the danger is much less than in pulmonary affections, but, nevertheless, the enemy is there and prepared to invade some vital organ if opportunity arise. A considerable proportion of cases, from 10 to 25 per cent. according to Dowd, develop phthisis; while some die of meningitis or of general tuberculosis, and in others tubercular foci appear in various parts of the body. (A short time ago, for instance, I examined a boy of five with hip-joint disease closely following enlargement of the cervical lymphatic glands). To these dangers must be added the chances of repulsive deformity and unsightly scars.

Treatment is both general and local, the latter being divided into non-operative and operative.

GENERAL TREATMENT.

This is of the utmost importance, and is always indicated, sometimes for its curative effects in the early stages, but more frequently as a safeguard against relapse following an operation. It comprises both medicinal and hygienic measures.

Medicinal.—Under this head come principally cod-liver oil, the syrup of iodid of iron, the hypophosphites, creosote, guaiacol, etc., although it is questionable that much effect is obtained from any of them. The various forms of tuberculin are not only ineffective, but by some are considered dangerous when used for a longer time than is required to establish a doubtful diagnosis.

The employment of cinnamic acid and other so-called specifics has not been attended by sufficient success to justify their general recommendation. As far as can be judged at present, the question of medication seems to be more nearly related to a building up of the resisting powers of the patient than to any specific drug action upon the germ.

Hygienic.—Most cases of tubercular adenitis develop in the young under bad hygienic surroundings—in the slums, tenements and sweatshops of large cities, and wherever people are overcrowded, overworked and underfed, with lack of sleep, fresh air and sunshine. Hence, if we wish to obtain favorable results in the cure of the disease and in the prevention of relapse, too much attention can not be given to hygienic measures. In fact, these are relatively of as much importance as in the treatment of pulmonary lesions.

It has long been observed that these patients do remarkably well at seaside resorts—for instance, at Berck-zur-Mer, as reported by Calot. So thoroughly is this recognized that seaside governmental stations have been advocated. I believe, however, that a high, dry climate, such as that of Colorado, offers more advantages than the seashore in the treatment of surgical tuberculosis. It is well established, for instance, that tubercular bone lesions are much less frequent in Colorado than in most lower altitudes; and although I can give no statistics, I have reason to think this is true of glandular tuberculosis also. During a surgical experience of over seven years in Colorado, I have seen nowhere near so many glandular enlargements as I observed in an equal length of time in Cincinnati; and the cases have not been, on an average, so virulent. In short, there is reason to presume that our rarefied, dry and stimulating atmosphere, our sunshine, and our relatively outdoor existence, do more toward fortifying the resisting power of the body against lymphatic tuberculosis than does a residence at the seashore; a fact which we have

* Read before the Colorado State Medical Society at Pueblo, June 25, 1902.

long recognized, but have failed to emphasize as it deserves, our principal attention having been directed to troubles of a pulmonary nature.

LOCAL TREATMENT.

Non-Operative.—In order to promote cure and prevent relapse, it is of prime importance to abolish, if possible, the sources of infection—by attention to teeth, tonsils, pharynx and nose, and by the eradication of inflammations of the ears and scalp. The importance of the teeth has been demonstrated by Starck and by Koerner, the former finding decayed teeth in 41 per cent. of cases and the latter in 73.8 per cent. Starck also detected tubercle bacilli in old cavities in several instances. Goodale even asserts that many enlarged glands can be made to disappear merely by treating the tonsils with solutions of iodin, but this has not been substantiated to any extent by others.

Massage and such methods as crushing of the glands between the fingers or their subcutaneous division with small knives have been abandoned as ineffective and dangerous, because favoring local and general dissemination.

Ointments and counter-irritants are still in extensive use, although their utility is, to say the least, doubtful. As ointments, ichthyol, resorcin, and the iodid of lead are probably the best. The most reliable counter-irritants are tincture of iodin and green soap.

Trojanow, who has had a large experience with various forms of local treatment, places more faith in the application of heat (hot-water bag for an hour or two each day) than in anything else, but nevertheless, his results have not been brilliant.

The x-ray has not yet had its utility established, although some encouraging cures have been reported.

The interstitial injection treatment has been advocated for many years. Some substances are employed for their supposed direct curative effects, such as tincture of iodin (5 to 10 drops every four days); Fowler's solution in increasing doses (8-10-12 drops); solutions of carbolic acid, alcohol, acetic acid, nitrate of silver, corrosive sublimate, guaiacol, phosphate of iron, etc. Also camphorated naphthol, balsam of Peru, oil of cinnamon, cinnamic acid, iodoform, etc. Other substances, such as chlorid of zinc (2 to 10 per cent.), stronger solutions of carbolic acid, papaïn, etc., are used for the purpose of causing a rapid breaking down of the glandular substance, which is supposed to facilitate more effective treatment. The method of Calot, for instance, is to inject 2 per cent. chlorid of zinc, with a hypodermic syringe, every second day, until purulent softening takes place. The fluid is then aspirated and replaced with camphorated naphthol.

These procedures, although strongly advocated by their supporters, have given rise to disappointment in the hands of others. They are unreliable and not free from discomfort and ever danger, as proven by cases of poisoning from camphorated naphthol.

Iodoform (10 per cent.) dissolved in ether (Verneuil) or suspended in olive oil or glycerin (Krause), probably forms the best material for injection. The oil must be boiled and cooled; and before stirring in the iodoform, it must be sterilized by soaking for twenty-four hours in 1-1000 corrosive sublimate. Into glands which have not yet broken down, about half a hypodermatic syringeful is inserted every eight to ten days, while glands containing fluid are aspirated and then filled with the emulsion. Even this method leads to more failures than successses and wastes time.

In estimating the value of the injection treatment, it must not be overlooked that although certain glands may disappear, there are nearly always others which can not be reached or even recognized without a surgical operation, and these are only too apt to give rise to trouble in the future.

Electrolysis and the use of electricity in other ways have never attracted much attention, and the same may be said of subcutaneous curettement.

The concurrence of medical and surgical opinion is that the non-operative treatment of tubercular adenitis is unsatisfactory, except in incipient cases, where the glands are still small, movable and undegenerated; but these are the cases which, like the early stages of cancer, are seldom seen.

Operative Treatment.—The majority of cases are best treated by operation, unless the general condition of the patient forbid. The presence of tuberculosis elsewhere, even in the lungs, is, however, no contra-indication, except when far advanced. If operation were refused all consumptives in Colorado, as has been advised in the East and abroad, much injustice would be done both patient and surgeon. Every-day experience shows that phthisic cases take chloroform so well, at least in Colorado, that little danger is to be anticipated from its use, and the removal of glands may give a much needed impetus towards recovery.

Curettement is applicable to sinuses, to tubercular ulcers of the skin, to cases in which during a radical operation the extirpation of a gland is attended by too much danger, and to cases where the condition of the patient precludes extensive surgical intervention.

The results are good provided all the diseased tissue can be removed; hence, the greater the disintegration of the glands the better. It is at times almost impossible, however, to scrape away all the tough glandular substance from within its adherent capsule, and to go outside this barrier may be dangerous in the extreme.

The method has its shortcomings, and must be employed with caution. It is easy, for instance, to scrape a hole in the internal jugular, which is so often adherent to caseous masses. In addition, it is impossible to reach and destroy all the affected glands, while the excessive traumatism may disseminate the disease.

Cauterization of sinuses, after curettement, with pure carbolic acid, applied with cotton on a probe, and repeated at intervals of a few days, often promotes healing to a decided degree, but the injection of iodoform is of little service. The ragged, undermined and livid tubercular skin around the opening of a sinus must be scraped away in order to facilitate rapid healing.

Although so strongly recommended by Treves, the cauterization of glands by plunging into them the tip of a thermocautery has been practically abandoned in favor of radical operative measures. The same may be said of the use of the seton.

Complete extirpation dates back to the time of Galen, and was extensively practiced by Parré and Larrey. It may be easy or it may be one of the most difficult operations in surgery. Nearly always many more glands must be removed than were counted on beforehand. They often appear one after another in the wound in apparently endless profusion, so that what promised to be a simple excision of one or two movable lymph nodes turns out to be an extensive, complicated and serious intervention. No one should attempt an operation of this kind lightly, without a thorough knowledge of the anatomy of the parts, and a full command of the best surgical technic.

When the operation is once begun, it should be made as complete as possible. If any diseased glands are left

they are likely to give rise to future disturbance, although the slightly affected ones may, under proper hygiene, remain quiescent. This is fortunate, because it may be impracticable to follow all the eccentric ramblings of the tubercle bacillus throughout the intricate maze of lymphatic structures in the cervical region, Betagh even claiming that the fat is sometimes infected.

In simple cases, where a single movable gland or a small bunch of glands is to be removed, a short incision is sufficient, which can be stretched, if necessary. Transverse scars, although often objectionable for other reasons, have less tendency to spread and become hypertrophied than longitudinal ones. Transverse scars in the submaxillary region are at times almost invisible.

But in the majority of instances, where operations are required at all, they must be so extensive that small incisions are out of the question. No greater surgical indiscretion can be made than to attempt to remove a number of enlarged, matted and adherent glands through a small opening. Plenty of room must be secured, even at the expense of extensive scars.

Incisions of many forms have been devised by various operators. Nearly all are efficient so far as room is concerned, but many occasion unnecessary disfigurement. This is sometimes true of the "S"-shaped incisions of Hartley and of Senn, which pass transversely beneath the jaw to a point beyond the mastoid, then curve downwards and forwards across the sterno-mastoid, and finally backwards parallel to the clavicle. In most instances enough room is obtained by a transverse submaxillary cut extended in a curve over the upper portion of the sterno-mastoid and then straight down along its posterior border. If, however, according to Dowd, the horizontal incision is carried backwards to the hair, and then curved downwards along its edge, a large skin-flap is formed which gives excellent approach to the enlarged glands. If necessary, the incision may be curved forward above the clavicle. The resulting scar is not conspicuous, especially from the front.

Dollinger advocated operating through an incision placed entirely within the hair back of the ear, which is undoubtedly possible in selected cases, but desirable in very few, on account of difficulty and danger.

The slightest consideration makes it evident that no formal incision can be universally employed. The skin must be divided to suit the case—sometimes in one direction, sometimes in another, following natural lines of cleavage and concealing scars as much as is consistent with thoroughness and safety. The subcutaneous suture should be used whenever practicable, as it not only does away with unsightly stitch holes, but prevents the annoying turning in of the edges of the skin.

Although the division of the sterno-mastoid muscle, with subsequent reunion, facilitates ease and safety in operating, it is seldom necessary and should be avoided, if possible, as it may lead to deformity. Retraction of the muscle is usually all that is required.

Theorectically, it is best to remove the glands, their capsules and surrounding fatty tissue in one mass. Practically this is not always possible. Portions of capsule or even of glands may have to be left behind rather than run the risk of injuring important structures. Even in the most skilled hands these operations are frequently so long and tedious as to try the patience and endurance of the operator to the utmost.

The jugular vein should be at once exposed in difficult cases, either above or below the glandular mass. Its situation is then known, and it can be freed from abnormal attachments with considerable safety. It is seldom necessary, as advocated by Stiles and others, to divide the vein between ligatures and remove a section along with the diseased tissues, or even to apply temporary ligatures with the idea of tightening them if required.

Injury to the jugular is not very uncommon. It generally occurs while the tissues are being pulled upon, thus stretching the vein and emptying it of blood, when it is easily mistaken for fascia and divided. Hence it is advisable to relax all deeper tissues before cutting.

Hemorrhage from a wounded jugular is alarming, but seldom fatal, for it can easily be controlled by pressure until ligatures, forceps or sutures have been applied. It is sometimes wise to leave the forceps *in situ*. The greatest danger, perhaps, lies in the entrance of air into the circulation. I have seen this on two occasions and fully realize its importance. Prompt closure of the opening with a finger is the best safeguard. The carotid arteries are much less liable to injury than the jugular vein, because their walls are thicker and their presence more readily detected by their pulsations.

Various nerves, however, must be constantly watched for by the operator. The one most exposed to injury is the spinal accessory, as it emerges from the sterno-mastoid muscle near the center of its posterior border. Although denied by some (Milton), the division of this nerve usually results in more or less atrophy and paralysis of the trapezius, which is noticeable in inequality of the shoulders and impairment of motion. If the divided ends are reunited with catgut, function may be restored within a few days. In one case I was unfortunate enough to cut this nerve in two places. Immediate suturing resulted in the reappearance of power in the trapezius within a week. In another instance about ten days elapsed before the shoulder could be spontaneously elevated. In the light of personal experience, I should not hesitate to deliberately divide the spinal accessory, when necessary, with the idea of reuniting it before completing the operation. It is readily detected by rubbing some blunt instrument firmly across the wound and noting the jerking of the shoulder when the nerve is touched.

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When removing glands in the lower portion of the neck it is possible to injure the pleura, and, on the left side, the thoracic duct. Injury to the duct may not be noticed at the time, but manifest itself later by an

abundant flow of lymph. It is best managed by packing and often recovers.

It is wise to avoid division of skin nerves, but this is not often possible, so that anesthetic areas about the ear, for instance, frequently follow an operation. They tend to disappear in time.

Riedel's claim that the removal of too many glands from a given region may result in more or less permanent edema is scarcely tenable, as the connective tissue lymph spaces soon form an adequate collateral circulation (Bayer).

Drainage to prevent the accumulation of blood and serum is desirable, although it may be dispensed with in twenty-four hours. Dressings should exert as much pressure as is tolerable, by means of properly placed pads of gauze and a well-adjusted bandage. Plaster-of-paris casts or supporting sandbags are unnecessary. The lavage of large cervical wounds with strong antiseptics is not advisable because of the occasional powerful action on important nerve structures.

Especial care must be given to anesthesia, as there is once in a while a marked tendency to stoppage of respiration, although I have failed to notice this to the extent emphasized by Finkelstein.

The necks of those who have suffered from tubercular glands are apt to be disfigured by unsightly scars, which may be corrected by excision, skin grafting or filling depressions with paraffin. There is an unfortunate tendency, especially in tubercular lymphadenitis, for scars to become red and hypertrophied—a sort of false keloid. Sometimes this is unavoidable; but again it appears to be due to irritation of the immature cicatrix, and may be prevented by adequate protection of the part. Removal of such scars may be followed by recurrence.

STATISTICS OF OPERATIVE TREATMENT.

The exact percentage of complete cures following radical operations is difficult to obtain, for most cases soon disappear from observation. The available figures vary markedly. Wohlgemuth, for instance, reports 70 per cent., Hobel 68 per cent., and Von Noorden 62.4 per cent.—an average of 65 per cent. in 309 cases. Blos, on the other hand, places the number of cures at 46 to 48 per cent., while Billroth obtained but 24 per cent.

The mortality, when the operations are skilfully done, is surprisingly low, most of the fatalities, as in goiter, being due to pulmonary complications. Too much should not be attempted at one time, and it is often better to operate in two sittings rather than attack both sides of the neck at once.

My own cases, although considerable in number, are neither numerous enough, nor have they been sufficiently well followed up, to permit of the drawing of reliable conclusions. My belief is decided, however, that radical operation is not only justifiable, but strongly indicated, in all serious or obstinate cases. And it must not be forgotten that better results can be obtained in Colorado than in lower, less favorable localities, because the chances of relapse are not so great.

SUMMARY.

1. The gravity of tuberculosis of the cervical lymphatics, both as regards local deformity and remote secondary manifestations, is generally underestimated.

2. General treatment, especially hygiene, is of the utmost importance, both in the cure of incipient trouble and in the prevention of relapses following operations on more advanced cases, most recurrences being due to neglect of such measures.

3. Residence at the seashore has long been recognized as of great benefit; but there is reason to believe that a high and dry climate, such as that of Colorado, with its rarefied, stimulating atmosphere and abundant sunshine, possesses superior advantages.

4. A point of extreme importance in local treatment is to abolish sources of infection, in the teeth, tonsils, nose, ear, scalp, etc., and neglect of this is apt to result in failure.

5. Non-operative treatment is often of doubtful utility, except in the beginning of the disease.

6. Pulmonary involvement does not contra-indicate operation, at least in Colorado, except in advanced cases.

7. Curettement is applicable to sinuses, tubercular ulcers of the skin, and where complete removal would be attended by too much risk. In all other instances a thorough operation should be done.

8. The size and shape of the incision should be adapted to the particular case. It should be free enough to permit of thoroughness and safety.

9. The chance of permanent cure following operation is probably better in Colorado than in lower and less favorable altitudes.

SANATORIUM TREATMENT OF TUBERCULOSIS.

ANALYSIS OF THREE HUNDRED CASES TREATED AT THE UNITED STATES MARINE-HOSPITAL SERVICE SANATORIUM.*

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SURGEON U. S. M.-H. S.
FORT STANTON, N. M.

My object in this paper will be to show briefly the results obtained in three hundred and three cases of pulmonary tuberculosis treated at Fort Stanton during a period of about two and one-half years by the open-air climatic treatment. In computing the value of these statistics the chronic nature of tuberculosis of the lungs and the comparatively short duration of treatment must be considered; the average length of treatment in the fatal and discharged cases having been something less than six months, including cases in every stage of the disease; in some the history only covered a period of two or three months and in others the disease had existed for years.

In one hundred and forty-two, or nearly 50 per cent., the history of the disease extended over a period of one year or more prior to admission. In a few cases the physical signs indicated lesions slight in extent, and there was little aside from the presence of bacilli in the sputum on which to base a diagnosis, but unfortunately the moderately and far-advanced cases outnumbered the early cases nearly five to one; some were so far advanced as to excite wonder that they were able to survive the journey to the sanatorium, and in one case death occurred at the railway station before the unfortunate patient could be transferred to the sanatorium; the statistics, however, are given you as they stand and, notwithstanding the great predominance of far-advanced cases, it is believed that the results attained will offer some encouragement to those interested in the climatic treatment of tuberculosis of the lungs.

LOCATION, CLIMATE, ETC.

Fort Stanton is located in Lincoln County, New Mex-

* Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Hygiene and Sanitary Science, and approved for publication by the Executive Committee: Drs. Arthur R. Reynolds, George Cook and Heman Spalding.

ico, and has an elevation of about 6,100 feet above sea level. The annual rainfall is from 14 to 17 inches, and the mean average temperature is 55.6 degrees. The following is the weather observer's record for the year ended April 30, 1902:

Month. 1901.	Mean Temp.	Mean Max. Temp.	Mean Min. Temp.	Precipitation. R. & S.	Cl'dy Days.	Partly Cl'dy Days.	Clear Days.
May	57.6	73.2	41.9	0.64	1	15	15
June	56.8	70.0	43.7	1.34	2	3	25
July	69.2	79.5	59.0	3.12	0	9	22
August	69.5	83.1	55.9	1.85	3	5	23
September ...	61.1	76.4	45.8	2.00	2	12	16
October	52.9	68.7	37.1	1.76	4	7	20
November ...	45.1	58.0	31.2	2.85	4	5	21
December ...	35.0	49.9	21.0	0.95	1	5	25
1902.							
January	36.6	52.1	21.2	0.05	4	7	20
February	38.5	55.4	21.6	0.38	2	2	24
March	40.6	55.5	25.5	0.22	2	5	24
April	53.3	72.4	34.2	0.00	0	4	26
Yearly av'r'ge	51.3	66.2	36.5	15.16	25	79	261

NOTE.—Cloudy means 7/10 to the entire day; partly cloudy means less than 7/10 of the day.

Fort Stanton was formerly a garrisoned post of the United States Army, but had been abandoned for several years when taken charge of by the Marine-Hospital Service, the old barracks and other buildings being remodeled and repaired for use as wards, quarters, etc. It was the first sanatorium established by the National Government for the treatment of tuberculosis.

The buildings were in such a dilapidated condition

Fig. 1.—Officers' quarters.

as to be absolutely uninhabitable when the station was established by executive order of April 1, 1899, and owing to the then distance from the railroad (about 75 miles) there was difficulty in getting workmen and material, and something over six months elapsed before any of the buildings were ready for occupancy, the first patient being received Nov. 18, 1899. We now have accommodations for about 150 patients, but additional buildings are being repaired for use as wards which will increase our capacity to about 225 patients. The sanatorium is now reached via the El Paso-Rock Island Railway; Capitan, seven miles distant, being our nearest railroad station.

We have our own ice and cold-storage plants, a fully equipped steam laundry and a modern system of plumbing, water works and sewage.

In establishing a sanatorium for consumptives at Fort Stanton it was the intention of Surgeon-General Wyman that the station should, in time, become in large measure self-supporting. With irrigation all kinds of farm and garden products grow luxuriantly and, while it is aside from the purpose of this paper, I may say in passing we produce all of our hay, a considerable portion of our grain and all our garden truck. A herd of Jersey and Holstein cows give us an ample supply of pure, fresh milk and also furnish a portion of our butter. We are starting a herd of range cattle with the intention of producing our own beef. We also breed horses to a small extent, raise chickens, pigeons, hogs and Belgian hares.

The industrial character of our sanatorium enables me to give employment to a considerable number of recovered and convalescent patients, thus retaining them in advantageous climatic and sanitary environment for a longer period than they would otherwise remain. The difficulty, by the way, of retaining patients under treatment and observation for a sufficient length of time is one which we encounter daily; patients unaccustomed to restraint, except while on board ship, soon tire of the necessarily rigid regulations of sanatorium life. The use of alcoholic stimulants is forbidden except as ordered medicinally for a small percentage of cases; this is considered a hardship not long to be borne by those who have been steady and often hard drinkers for many years. The problem of how to keep men, accustomed as they are to the license of large seaports and lake and river cities, interested, amused and satisfied in an arid region is one not easy of solution. Unfortunately for our statistics, those who allow their longing for the delights of city life to curtail their residence in the sanatorium are usually those with fair or good chances of ultimate recovery while the unfavorable cases, almost to a man, remain. Several cases, favorable when discharged against advice, have returned after absences of two to six months, only to swell our mortuary records.

We try to keep the minds of our patients occupied;

Fig. 2.—Surgeon's quarters and assistant-surgeon's quarters.

cards, checkers and other indoor games are provided (to be played out of doors as a rule); a few plant flower gardens and some have taken to golf, which affords a very suitable amount of exercise to a large number of ambulant cases. We have a very fair library, which enables many to interest their minds while taking necessary rest. Horseback riding is allowed a limited number of cases which are practically convalescent.

GENERAL STATISTICAL SUMMARY.

From Nov. 18, 1899, until April 30, 1902, the period covered by these statistics, 303 cases of tuberculosis have been treated with the following results: Forty-five patients have died, 9 discharged not improved, 97 discharged improved, 37 discharged apparently recovered, 115 remain under treatment.

Their ages were as follows: Under 25 years, 47; from 25 to 34 years, 118; from 35 to 44 years, 91; from 45 to 54 years, 33, and 14 cases 55 years of age and older.

In 31 cases, or a little over 10 per cent., there was a history of tuberculosis in either father or mother of patient. In 226 cases both lungs were affected and in 77 only one lung was involved. The tubercle bacillus was demonstrated in the sputum of 273 cases, and in 123 other organisms were found, their order of frequency being as follows: *Staphylococcus pyogenes aureus, Streptococcus pyogenes, Micrococcus tetragenes, Sarcina*

aurantiaca, Leptothrix baccalis, bacillus of Friedlander. The pneumococcus was absent. Two or more of these organisms were usually found in one specimen. Pulmonary hemorrhage occurred in 117 cases, in 77 before but not after admission, in 12 after but not before, and in 27 both before and after admission, showing that the risk of hemorrhage at this altitude and under conditions prevailing at this sanatorium is not so great as is popularly supposed. In 12 cases, all advanced, the larynx was involved; 46 cases were complicated with syphilis and 36 with malarial fever; in one case the bladder alone was infected, the bacillus being found by guinea-pig experiment; empyema was present in three

Fig. 3.—Office and laboratory building.

cases. Tubercular meningitis occurred in three cases and in three there was involvement of the testicle.

Of the 188 cases who died or were discharged, 45, or 24 per cent., died; 9, or 5 per cent., were discharged unimproved, and 37, or 20 per cent., were discharged apparently cured. Ten fatal cases and 17 improved and unimproved were under treatment less than one month; one death resulted from acute nephritis, one from cerebral hemorrhage and one from syphilis of the

Fig. 4.—Patients camped in front of hospital.

brain. Eliminating from the calculation those cases which were under treatment less than one month the percentages would be as follows: Died, 23 per cent.; improved, 53 per cent., and apparently recovered, 24 per cent.

STATISTICS OF THOSE IN THE EARLY STAGE.

The above figures include all cases of tuberculosis treated at this sanatorium during this period and the moderate and far-advanced cases outnumber the early cases by about 5 to 1. In considering these statistics I have divided the cases into two classes: The first stage or early cases in which there was no appreciable consolidation, one or both lungs affected, with or without bacilli in sputum, with slight or moderate constitutional disturbance and with localized moist râles; the other class includes second and third stages or moderately and far-advanced cases with appreciable consolidation and physical signs attending same, one or both lungs affected, considerable to very severe constitutional disturbance, with or without bacilli in sputum and including those cases in which there was evidence of cavity formation. Of the first class we have treated 54, 40 have died or been discharged and 14 remain under treatment; the family history was positive in 7 and

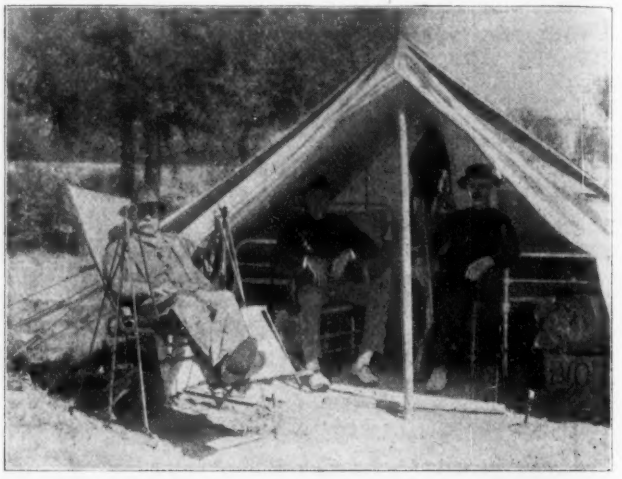


Fig. 5.—Tent life.

negative in 47 cases, in 30 cases but one lung was involved and in 24 both lungs, tubercle bacilli were found in the sputum of 39 and other organisms in 27. In 50 per cent. of those in which bacilli were not demonstrated in the sputum there was syphilitic infection.

Tuberculin is not used for diagnostic purposes as a routine measure, owing partly to the extreme prevalence of syphilis in the class of people from whom we draw

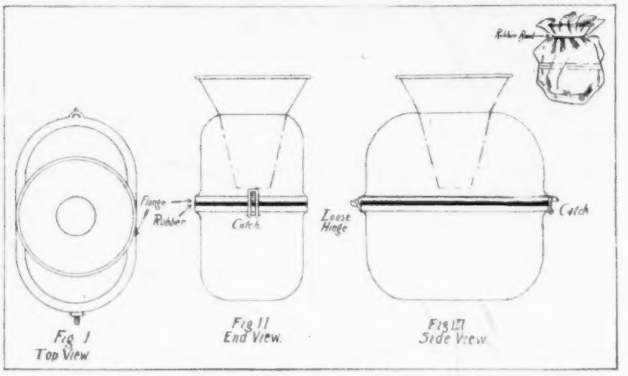


Fig. 6.—Pocket sputum flask. M.-H. S. pattern.

our patients. We have recently begun injecting the sputum of patients, in which the bacilli can not be demonstrated, into the peritoneal cavity of the guinea-pigs, and in the cases in which this was done there were positive results in 66.6 per cent. and negative in 33.3 per cent. Hemorrhage occurred in 8 cases of this series, but in only two after arrival at the sanatorium; in 2 cases pulmonary hemorrhage was the first indication of the existence of the disease. Of the 40 cases of this class in which treatment has terminated, one, or 2.5 per cent., died, death being due to acute nephritis, 2, or 5 per cent., were discharged improved and 20, or 50 per cent., were discharged apparently cured; or, eliminating

10 unimproved and improved cases which were under treatment less than one month, and the percentages are, apparently cured 66.6 per cent., improved 30 per cent., and died 3.3 per cent. Eight of the cases still being treated are convalescent and six are much improved, both physically and in condition of lungs.

The average length of treatment in the 40 discharged cases was 134 days, in the 22 apparently cured cases 243 days.

STATISTICS OF THOSE IN THE SECOND AND THIRD STAGES OR ADVANCED CASES.

The total number treated under this heading was 249; in 24 cases, or something less than 10 per cent., there was a history of tuberculosis in either father or mother; in 196 cases both lungs were involved and in 53 but one lung. The tubercle bacilli were demonstrated in the sputum of 234 cases and other organisms were present in 96 cases, their order of frequency being:

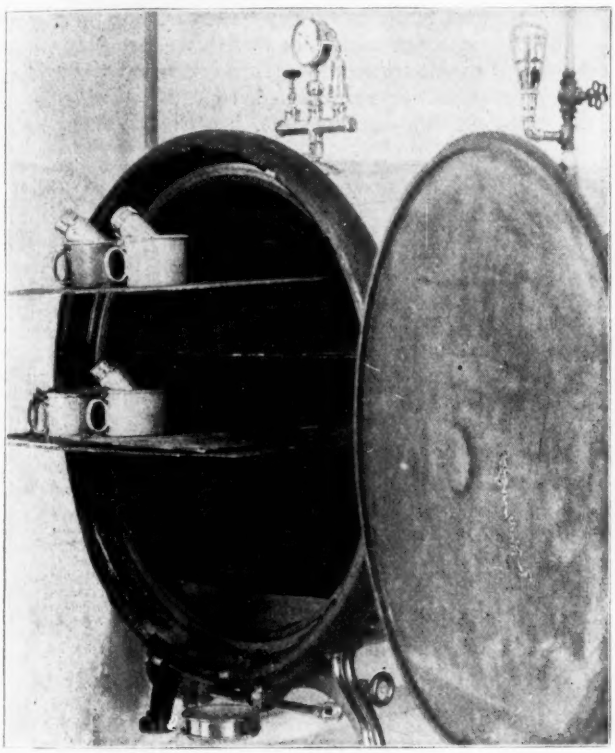


Fig. 7.—Steam sputum sterilizer.

Staphylococcus pyogenes aureus, Streptococcus pyogenes, Micrococcus tetragenus.

The results of treatment in the above cases were as follows: 44 died, 7 discharged not improved, 80 improved, 17 apparently or clinically cured, 101 remain under treatment at date of this report.

In one of the cases included in the above series the bladder alone was affected and the guinea-pig experiment was used to demonstrate the tubercle bacilli. In one case the diagnosis was not confirmed, .01 tuberculin having failed to produce reaction.

In 109 cases pulmonary hemorrhage occurred during the course of the disease; in 71 cases there was hemorrhage prior to but not after admission and 26 both before and after admission, and in 12 cases after but not before admission. The larynx was involved in 12 cases and syphilis complicated in 36 cases. Of the 44 fatal cases included in this record 10 were under treatment less than thirty days and one died at the railroad station en route to the sanatorium. One death was caused by cerebral hemorrhage and one by cerebral syphilis; in the former case the pulmonary lesions had almost entirely healed, and in the latter they were of secondary importance to syphilitic lesions.

Of the 148 cases under this heading, in which treatment has terminated ,44, or 29 per cent., have died, 7, or 5 per cent., were discharged unimproved, 80, or 54 per cent., were discharged improved, and 17, or 11 per cent., have been discharged apparently cured. Eliminating 10 fatal, 2 unimproved and 5 improved cases, which were under treatment less than one month, the percentages are as follows: died, 26 per cent.; not improved, 3 per cent.; improved, 57 per cent., and apparently cured, 13 per cent. The condition of the 101 patients remaining under treatment is as follows: apparently cured, 2; convalescent, much improved, 68; arrested, 21; worse, 10.

There are included in this series 39 cases which were permanently febrile; in 14 the fever was remittent and in 25 intermittent. The average duration of the disease prior to admission was 14 months, and in all but 3 the bacillus was found in the sputum; 9 were under treatment less than one month, 8 less than two months and 22 longer than two months; 30 of these died, 4 were discharged improved and 5 not improved; there was tubercular meningitis in 4 cases, the larynx was involved in 4 and other organs in 5; syphilis was a complication in 11, malaria in 10 and Bright's disease in 5. In 3 death was caused by hemorrhage. While most of our cases had fever at some time during the course of the disease, it usually, if present on arrival, subsided in a few days, but, as will be seen, those cases in which the febrile condition was permanent gave the greatest mortality; the intermittent cases usually showed a normal morning temperature and an evening temperature ranging from 38 to 41 degrees centigrade, the remittent cases usually had a morning temperature of about 38 and an evening temperature of not over 39 degrees; 16 other cases were characterized by subnormal temperatures with an evening rise above normal in 12 and a continued subnormal temperature in 4. The average previous duration of the disease in these cases was twelve and one-half months, and they all remain under treatment at this writing, 14 being improved and 2 not improved. These two groups represent the most unfavorable types of the disease as we see it.

MEASURES TAKEN TO AVOID INFECTION OF THE SANATORIUM.

Under this head the most important item, of course, is the disposal of the sputum of patients. Each patient is provided with a pocket sputum flask and a hand or bedside sputum cup, and they are forbidden to expectorate except into these receptacles, and no patient will be retained at the sanatorium who expectorates in any other place than the cups provided. All metal cups are disinfected by steam each day, the Seabury & Johnson cups being burned. A careful daily check is kept and any patient failing to present his cups for disinfection is at once reported to me for investigation.

While disinfection by steam is effective, there can be no question that destruction by fire is a preferable method, mainly because it is easier and more cleanly. I am now making arrangements to substitute a crematory for the steam disinfection of sputum. The main difficulty heretofore has been the economical construction of a destructible pocket sputum flask of effective pattern.

All tableware is treated by boiling water after each meal. Clothing and bedding used by patients is disin-

fected by steam before going to the laundry. Once each month rooms and wards occupied by patients undergo disinfection, the methods employed being sulphur fumigation, formaldehyd and washing with bichlorid, 1:1000, the last named being the most used. Rooms and wards occupied by patients are frequently recalcimined.

GENERAL TREATMENT: TENT LIFE.

The essential elements of treatment followed here are life in the open air, ample feeding and rest or graduated exercise. The patients live out of doors the entire day and sleep with doors and windows wide open; many during the spring, summer and autumn months are quartered in tents. After a brief period of such a life patients become very fond of it, and there is very little trouble in persuading them to stay out of doors almost the entire time. Ordinary colds are extremely rare when patients become accustomed to the open-air life, and we have not had a case of pneumonia since the station was opened, nor have I seen a case in Lincoln county, although I have had a fairly extensive general practice for over a year in resident Mexican and American families.

Cases quartered in tents do better than similar cases in wards—several in the past month have gained from

Fig. 8.—Old dining room, soon to be converted into a ward.

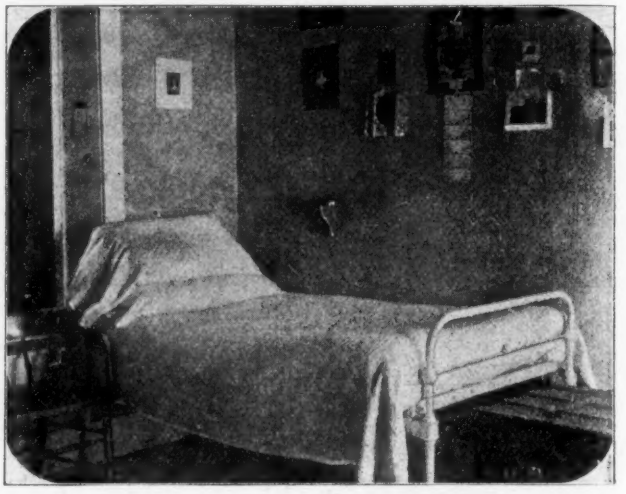


Fig. 9.—Patient's bedroom in convalescent building.

10 to 20 pounds in weight, and even febrile and apparently hopeless cases do better in tents; they are more comfortable, have less fever and cough and better appetite. The tent dweller losses all fear of night air, and the mode of life is so popular that I have recently been obliged to make requisition for an additional number of tents.

REST AND EXERCISE.

Most tuberculous patients seem to be under the impression that they should take as much exercise as they can possibly stand, and, I must confess, before coming West I had much the same idea, but my experience at Fort Stanton convinces me that more patients are injured by too much exercise than by too little; we find it constantly necessary to restrain our patients and order rest when they think themselves able to indulge in all sorts of exercise.

Cases having fever and hemorrhages, of course, require absolute rest, and those in which the disease is actively progressive should take but little exercise, and that of the gentlest sort. For patients who are convalescent or making decided progress toward recovery we provide golf, croquet and quoits, some use the punching bag and a greater number take daily walks, and a few of the best cases are allowed to take moderate horseback exercise. While the relative amount of rest and exercise necessary for various stages and classes of the disease is difficult to specify, in general I would say that the amount of exercise allowable should be in inverse ratio to the activity of the disease; each case should be considered alone, and rest or exercise prescribed with the same care we use in prescribing other remedies.

MEDICAL TREATMENT.

Medicinally we treat the disease symptomatically; for the cough, heroin or heroin and terpin hydrate, and codein are our most effective remedies, but comparatively few cases require cough remedies after the first few weeks. Dyspepsia, perhaps, gives us more trouble than any other one symptom; for this pancreatin and salol are often effective. Warburg's tincture and other bitter tonics sometime restore the appetite, and we find the various malt preparations very valuable tonics. Frequently we find that loss of appetite is caused by constipation or torpid liver, and in such cases sodium phosphate gives excellent results. A large number of remedies of reputed or established reputation have been tried with varying success, but, broadly speaking, our efforts have been to keep in normal condition all the functions of the body, promote and satisfy a healthy appetite, keep patients in the open air practically all the time and by watchful care see that they do not prejudice their chances of recovery by injudicious physical exercise or surreptitious over-indulgence in stimulants.

Whisky has its place in the treatment of tuberculosis, and we use it in something less than 10 per cent. of our cases; its excessive use is, of course, prejudicial, and we have had several cases which were previously doing well, but dated their decline from excessive drinking of smuggled whisky.

Hemorrhages are usually controlled by ordinary remedies, but whenever persistent or copious we have resorted to the use of Murphy's treatment—the injection of nitrogen into the pleural cavity. I have now under treatment two cases in which this treatment controlled what I am satisfied would have been fatal hemorrhages, and they are now both making very satisfactory progress toward recovery. In our experience this treatment seems to exert no beneficial influence on the lung lesions aside from the control of hemorrhage, but there has been

recurrence of hemorrhage in no case in which it was used.

Food is an element of treatment equally as important as air, and our aim is to supply patients all they can eat as often as they desire it. A diversified diet is prescribed, meat and fresh milk being served at all meals, and eggs for breakfast and supper; we also have a lunch of milk and crackers at 10 a. m. and raw eggs and milk in the afternoon are prescribed for patients requiring additional nourishment. We have had excellent results with tropon, one case on a diet of milk, raw eggs and tropon gained 14 pounds in a short time.

DURABILITY OF CURE.

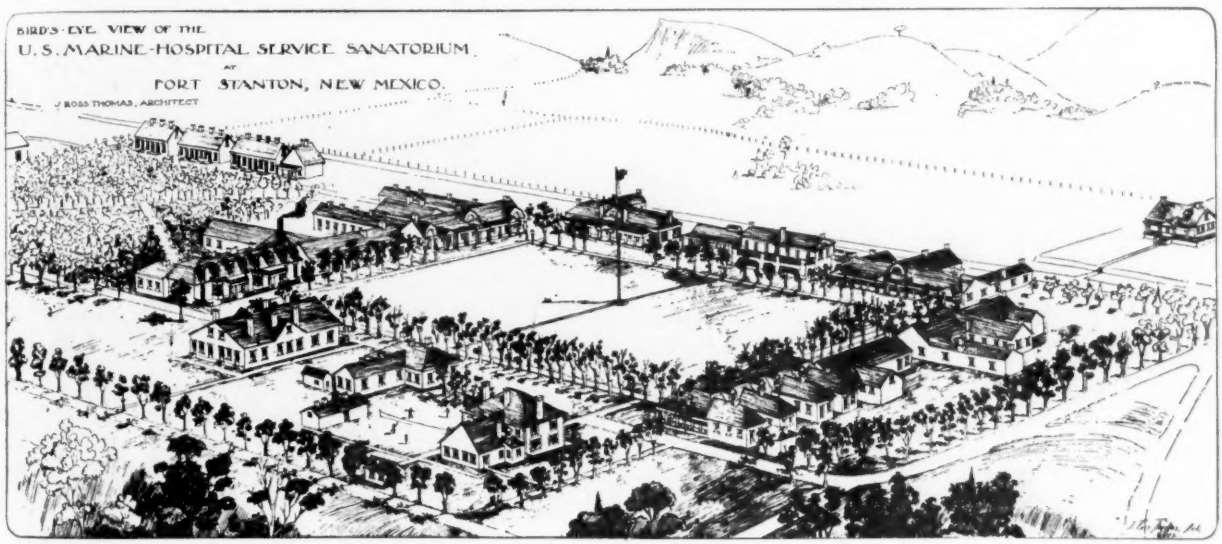
The question is often asked: "If I become cured here will the cure be permanent and may I with safety return to my former home and occupation?" We have only been able to keep track of a few of our discharged cured patients, and in none of these has there been a return of the disease, but the data at present available are not sufficient to warrant giving a positive reply, either in the affirmative or negative to the question. I advise that apparently cured first stage cases remain in this or similar climate at least six months after disappearance of all symptoms, and second and third stage cases a year, but many of the latter would do better to reside permanently in a favorable climate. I cite the following cases as bearing on the point:

CASE 1.—W. D., aged 50 years, in the second stage of the disease, with consolidation of the upper lobe of the right lung, was admitted June 14, 1900, having had at that time the disease twenty months; bacilli were demonstrated in his sputum and there was mixed infection. He was discharged, apparently cured, Jan. 15, 1901, and employed as cart driver; his appearance was that of perfect health, and he remained well until June, 1901, when he had an attack of influenza; this disease ran its course, but the patient did not recover strength, and the cough continuing beyond the usual period led to re-examination of his sputum when the tubercle bacillus was again found. He was very ill for several months, and at one time it was thought he would die, but he is now almost well again. There is scarcely a possibility of reinfection in this case, but this seems rather to have been a breaking down of a partially or entirely encapsulated mass of tubercular deposit during the attack of influenza.

CASE 2.—A second case is more encouraging: W. K., aged 28 years, admitted Dec. 19, 1899, with consolidation of the right apex and the left upper lobe and a history of lung trouble extending over 11 years, was discharged apparently cured, Dec. 10, 1901, nearly a year after all symptoms had disappeared. He returned to his home in Washington, D. C., and about the middle of January wrote me that he had had a serious relapse, and asked to be again received as a patient. He was re-admitted Jan. 28, 1901, and examined with more than ordinary care; there were physical signs of acute bronchitis, but the most careful microscopic examination failed to reveal bacilli; his sputum was then injected into the peritoneal cavities of two guinea-pigs, which were killed at the end of eight weeks and found to be in a perfectly healthy condition. This man recovered from his bronchitis in a short time and is now doing duty as night-watchman.

CASE 3.—The third case is that of a young man 21 years of age who was admitted, Aug. 28, 1901, in the first stage of the disease, tubercle bacilli being present in his sputum; he made rapid gain in weight; cough and expectoration ceased entirely by Jan. 1, 1902, and for more than three months he had absolutely no symptoms, and was about to be discharged from further treatment. A few days ago, on arising in the morning, he coughed once, expectorating a small portion of mucopurulent matter, which on microscopic examination was found to contain tubercle bacilli in considerable numbers well grouped. The bacilli had previously entirely disappeared from his sputum.

CASE 4.—The fourth case, in which there was extensive involvement of both lungs and larynx, with almost entire loss of voice, patient extremely weak and much emaciated; was discharged after 15 months' treatment, and for the past year has been employed as wagon driver in the nearby town of Capitan, N. M. He has entirely recovered his voice, strength and usual weight, and remains well, so far as physical signs are concerned, and is strong and hearty.



The lessons and encouragement to be gained from these cases seem too obvious to require comment.

CONCLUSIONS.

1. Given a sufficient length of stay recovery may be expected in a very large percentage in first stage uncomplicated cases.

2. Recovery or arrest may be expected in a fair proportion of second and third stage cases and all the afebrile cases in which there remains sufficient sound lung tissue to support life, but we should exercise caution lest we be premature in pronouncing second and third stage cases cured.

3. Results in permanent febrile cases, especially those in which there is a wide range of daily temperature, are not better than in less favorable climates.

4. Hemorrhages seem less liable at this altitude than at the sea level.

5. Heredity plays an unimportant part in the causation of the disease.

THE SANATORIUM TREATMENT OF CONSUMPTION.*

S. G. BONNEY, A.M., M.D.

DENVER.

There is no problem of more absorbing interest to the profession from a medical and humanitarian aspect, and to the public from a social and economic standpoint, than the comprehensive management of pulmonary tuberculosis. Any discussion bearing directly on this question should be inspired solely by its relation to two central thoughts, the ultimate welfare of the consumptive class and the permanent preservation of the community.

THE FUNDAMENTAL PRINCIPLES OF TREATMENT.

The welfare of the consumptives, especially among the poorer classes, includes an intelligent aid rendered to those in early stages, affording a reasonable prospect of success, and adequate provision for the care of the enormous class of incurables. The interests of the community pertain to the removal from its very midst of destitute invalids constituting an oppressive burden to their families, if not to society, and who, through their ignorance and inability to observe precautions, become a constant menace to the well. The preservation of the community also demands some well-directed and far-reaching system of education, the influence of which to be most effective must be from the force of daily example and practical experience rather than through the medium alone of official pamphlets. It is with reference to these broad considerations that a comparatively recent and special method of treatment, viz., that of closed sanatoria, will be reviewed.

It may perhaps be properly insisted on in the beginning that the general acceptance of the large field of usefulness of such institutions should not imply the assumption of the practical applicability of sanatorium régime *per se,* for all cases of consumption, regardless of circumstance, condition or climate. That such a dogma has been incorporated in the creed of a few leaders of medical thought and subscribed to by others in their articles of phthisiologic faith reflects merely the fervid zeal of the enthusiast in the midst of somewhat limited opportunities for observation, on awakening to the light of certain indispensable features of regimen.

SPECIAL PRINCIPLES CONCERNING SANATORIUM TREATMENT.

It seems fitting to institute an inquiry as to the precise scope of the sanatorium treatment of consumption without bias, prejudice or preconceived ideas, save those founded on the substantial facts of experience. In appreciation of the great practical utility of sanatorium management for certain carefully selected and widely varying classes of cases, and with a profound conviction of its nonadaptability on the highest grounds to other equally defined groups of cases, this paper is presented after much hesitation in an attempt to more clearly define the true position that can be consistently and rationally maintained by responsible medical advisers. The following propositions may be stated as now well-established truths:

1. Consumption is not only a communicable, but also a curable and preventable disease, and hence the obligation on society is directly imposed to secure all possible means of prevention and at the same time make suitable provision for the care or, at least, partial maintenance of those afflicted and incapable of self-support.

2. Consumption may become arrested occasionally in spite of unfavorable climates, unhygienic surroundings, undue exposure, insufficient food and clothing and financial distress, without even the knowledge of patient or friends, the essential factor in the determination of final results in such cases being apparently the measure of individual resistance. The sequence of thought is plain to the effect that a certain proportion of cases must inevitably do well in unfavorable climates on simple change of environment and mode of living. This does not necessarily imply that such change is sufficient for general application, but does indicate that certain modifications of previous conditions and surroundings, even without sanatorium supervision, may in some incipient cases turn the balance temporarily in favor of the constructive efforts of Nature. Obviously a still larger proportion of similar cases may be expected to secure arrest if subjected to the benefits of residence within closed sanatoria.

3. There is no single climate or special manner of treatment in any way applicable to all cases of consumption. Each case is distinctly a law unto itself, the individual peculiarities of temperament, the ever-varying combinations of physical signs and associated disturbances, the financial status and domestic relations furnishing a clinical picture that must be adjudged solely on its intrinsic merits.

4. The most particular and painstaking attention to the minutest detail is absolutely essential to the successful treatment of the disease. On this feature depends to a great extent the usefulness of the closed sanatorium on account of the added opportunity for continued autocratic control with reference to out-of-door life, food, rest, both physical and mental, and the avoidance of blunders, rather than from strictly medicinal or therapeutic measures.

5. The degree of successful supervision either within or without an institution depends almost entirely on the personal influence of the physician himself. It is almost purely a question of personal equation and demands a certain aptitude for the peculiar requirements of the position, a devotion to the work for its own sake, an interested and solicitous regard for the slightest welfare of the patient, a degree of sympathy, tact and enthusiasm which may almost be said to constitute a form of genius. This may be exercised without an institution as well as within, the sanatorium itself being in most instances a most beneficial accessory to this result rather than as a *sine qua non.* It is the man not the institution, that determines the degree of cooperation and hearty good fellowship between physician and clientele which alone insures a proper disciplinary régime.

In addition to the foregoing postulatory statements may be added finally the opinion that climate, although by no means the only desideratum, if indeed the principal one, in the treatment of consumption, nevertheless does offer to carefully selected cases more assurance of ultimate and permanent arrest than any other single component factor, a proper system of régime admittedly occupying the position of a most important and usually indispensable adjuvant.

A CLASSIFICATION OF PATIENTS: 1. THOSE DEMANDING SANATORIUM TREATMENT.

Applying these prefatory remarks to the special subject under consideration, it is found that there are certain distinct classes for whom some form of sanatorium

* Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Hygiene and Sanitary Science, and approved for publication by the Executive Committee: Drs. Arthur R. Reynolds, George Cook and Heman Spalding.

control is directly demanded, some for whom the question is still *sub judice,* and some for whom this course appears contraindicated as follows:

1. Those for whom institutional care and control is demanded regardless of climate. Under this head may be properly grouped three fairly distinct classes.

(*a*) Those hopelessly ill and impoverished who may be permitted to enter segregation hospitals, apart from special sanatoria, where the last comforts of life may be administered without the slightest degree of danger to society, and where death may be robbed of a portion of its horrors through judicious nursing and medical care. Is it not apparent without discussion that the destitute and dying consumptive who is *persona non grata* in all municipal institutions for other classes of suffering humanity, and who is even denied admission in special sanatoria on account of the advanced nature of his disease, is entitled, however, from the commonwealth, on the grounds of humanitarian and scientific considerations, to some form of institutional provision.

(*b*) The consumptive poor who, in state sanatoria perhaps with industrial opportunities, can frequently be enabled to resume their duties and former positions in the community as wage earners. By this means protection accrues to society through the control thus offered of those unable in their ordinary environment to observe all sanitary precautions, and who necessarily tend in time with advancing infection to become a distinct element of danger. The consumptive thus receives from the state an energetic provision for the saving of life and health and the alleviation of suffering. His position in his family as a bread winner is materially improved, often preventing them from becoming a burden to society; and the state in turn from an economic standpoint adds to its resources by preserving one of its most valuable commodities, the earning power of labor. If it is incumbent on the state to provide for the poor who are not sick, but who have sunk to their present state on a line of little resistance through habits of shiftlessness, dissipation, or by reason of inherited perversion, and who may never hope to regain social cast or citizenship, how much more imperative is the demand to assist the consumptive poor who usually are not blameworthy for their misfortune, and for which society is to some extent responsible. The same reasoning may apply to our state prisons, reformatories and insane asylums, save for the single consideration of the public safety, and this appears a difference alone of degree.

(*c*) The ignorant or vicious, without especial reference to stage of disease, who refuse to conform to established rules and wilfully make themselves a public menace, for whom special detention institutions are appropriate.

This last-mentioned class of cases directly implies the necessity of inculcating a broader educational influence with its elevating and more submissive tendencies, through the wider, every-day diffusion of practical hygienic knowledge. Bearing in mind the two central thoughts toward which, as previously stated, all discussion of institutional treatment should be directed, and recognizing, as seems unavoidable, the utter inability of sanatorium construction alone to fully subserve such purposes, is not the thought sustained, although perhaps somewhat digressive, that certain corollary additions to sanatorium management are indicated to meet the requirements demanded by the enormous class of indigent consumptives. Such cases are out of all proportion to the capacity of any number of institutions, to say nothing of the pregnant fact that the true remedy of the evil consists not alone in providing a temporary means of retreat for the victims of known conditions, but rather in conducting a definite system of defense. Such protection is to be accrued from the daily personal dissemination of practical truths in the very homes and workshops of the poor where exists the most "prolific habitat" of the disease. To this end and in connection with detention institutions is recommended the establishment of an out-patient dispensary service, with provision for the maintenance of an able corps of assistants for district work. These, by visiting the homes, studying the conditions and by power of kindly, personal contact, can not only relieve material conditions, but begin the actual propagation of knowledge. It is this educational influence within a community that reflects one of the chief benefits of all consumptive institutions. Those who have profited either at home or in sanatoria through the force of example, readily become in turn self-constituted apostles to spread broadcast the gospel to which they have become so much indebted.

It is reasonable to suppose that state and municipal sanatorium provision along the lines herewith suggested is not only obligatory from a high moral sense, but also practicable and economic as well.

CLASSIFICATION OF PATIENTS: 2 AND 3, SANATORIUM TREATMENT SUB JUDICE.

2. Those for whom institutional treatment *per se* is still *sub judice.*

(*a*) This division embraces almost entirely the large middle class with incipient infection and limited finances, for whom an inexpensive sojourn in a closed sanatorium offers some reasonable hope, if not definite assurance of improvement, without involving the financial sacrifice, the separation from family and friends, and the practice of rigid economy in a far country under strange conditions, and frequently with most unfavorable surroundings.

A tentative recourse to local sanatorium régime for such cases can not often result in any material injury, even to those subsequently sent away to seek climatic change. Their surroundings are certainly much superior to those previously experienced, and they are brought under the direct supervision of skilled medical advisers ready to recognize unfavorable changes or failure to respond satisfactorily to existing conditions. To these unfortunates the coming exigency may be earlier met than without an institution by a frank recital of the situation to the patient or friends with further climatic suggestions if within their practical means.

While the physician and philanthropic citizen of our open health resorts are ever ready to lend every aid to worthy impoverished cases of consumption regardless of length of residence therein or previous location, the fact remains that, generally speaking, it is no kindness to send such cases away from home. It can hardly be said that the consumptive with such limited resources profits materially from the hardships necessarily assumed by himself as well as imposed to some extent on others. Allusion is here made to those of his family who by dint of personal sacrifice manage to extract a mere pittance from their savings to contribute toward a portion of his support, and also to the resident employe in health resorts and his family in being forced to compete with the cheap labor of the unfortunate or desperate consumptive. While admittedly the invalid who is distressed financially is equally worthy with those more favored and is entitled to every sympathy and active consideration, this does not extend as a matter of real kind-

ness to sending him away without resources among strangers to battle against great odds in order to supply pressing necessities. With these the question is one to be reviewed with the patient in all its phases, and must be decided strictly on the special merits of the condition of the individual himself and is hardly subject to further generalization. Many such have less to lose and more to gain by residence in closed sanatoria. It must be insisted, however, that a certain proportion of such incipient cases without expectoration, without bacilli and without money, now frequently admitted to sanatoria, constitutes but a slight source of danger to the community, and with slight financial assistance in the beginning in an appropriate climate are not too ill to engage in some occupation, if necessary, with a reasonable assurance of improvement.

(*b*) Another class comprises those with considerably more advanced infection sufficient to render prognosis doubtful in any climate with perhaps a somewhat more comfortable financial status. With these the separation from family and relatives, with the necessarily prolonged absence, the knowledge of the grave possibilities, the physical discomforts and the mental anguish are frequently sufficient to cast the vote against the hardships of an extended journey and the struggling adaptation to radically new surroundings. Unfortunately, however, it is not to such a class that the sanatoria at present in existence extend a welcome. In all institutions with which I am familiar only the most incipient cases are admitted. To such an extent is this practiced, and naturally enough to be sure, that at a certain popular institution "patients are admitted from the list of those who have passed the necessary examination, not in the order in which they have applied, but according to their physical condition, the most favorable cases being admitted first." In view of the inability of such cases to gain admission to closed local sanatoria the only alternative short of despair is attempted climatic change. It is but fair to state that this procedure should not be resorted to without full appreciation on the part of the family of the utter uncertainties attending the change. Neither should it be undertaken without provision having been made to permit the subsequent elaboration of a sanatorium régime, or at least its approximate approach in a new climate where no admission blanks are required.

3. Cases for whom residence in local closed sanatoria are not unqualifiedly recommended.

In this class are embraced all with incipient or moderate infection who are not prohibited by financial or other cogent reasons from seeking climatic change.

In explanation of this somewhat surprising and perhaps arbitrary classification it should be borne in mind that the essence of this particular phase of the inquiry relates exclusively to the best possible provision to be made for such cases. An enormous class, who are intensely anxious to avail themselves of every rational opportunity to recover from their disease, appeal to their medical advisers for nothing less than that which offers the greatest and most reasonable assurance of ultimate arrest. Cases such as these, willing to enter the lists and engage in the prolonged struggle destined so frequently to be a trial to their patience and a test of their endurance, fortitude and bank account, with their own existence and the happiness of near ones as the issue, surely deserve such preparation and fortunate choice of battle-ground as will insure the greatest probability of final success. The situation is one fraught with tremendous responsibility. The obligation of the physician is not fulfilled by advising merely what is admittedly good, but is satisfied only by urging only what is actually the very best for the individual case. It is not a question of the possibility or probability of securing arrest within a local institution, but rather whether such environment is, of itself, the method most likely to accomplish this result. The position of the physician is somewhat analagous to that assumed by the surgeon in considering the advisability of operation in appendicitis. It is admitted that the patient may recover in a given case without surgical interference, but insisted, notwithstanding, that his chances are better with immediate operation. The fact that invalids occasionally recover from incipient tuberculosis without climatic change is no more to be considered as an argument against the wisdom of its special application than is the recovery of a given patient with appendicitis without operation to be considered a reflection on its surgical utility.

Should not the physician in assuming to direct the destinies of his well-to-do-patients make a practical application of the condition to himself and advise in accordance with the course he would himself pursue under similar circumstances. Were such the case little doubt can exist as to the promptitude and certainty of action. The logic of climatic truths to be applied in this connection in appropriate health resorts consists in the more complete elaboration of the very principles on which depend the efficacy of sanatorium management, viz., an essentially out-of-door life. If the doctrine of out-door living means anything as directed toward the pulmonary invalid it means that the best results are to be obtained through its most complete fulfillment. It follows that the fullest conception of a proper method of open-air existence can be satisfactorily conducted only in those regions affording the maximum amount of sunshine with associated warmth and dryness together with favorable conditions of soil. If to these attributes be added moderate altitude and rarefaction there are exerted at once certain intrinsic influences distinctive of the locality, yet being in fact but the attainment of the higher results attempted in less favored regions along precisely the same lines. Reference is made to the continuous expansion of the contracted chest and the vesicle dilatation with increased pulmonary capacity through the unconscious efforts of lung gymnastics. In addition the increase in vigor of the heart contraction produces an acceleration of the blood flow and an equalization of the circulation diminishing the tendency to local pulmonary congestion. By virtue of these influences, together with the increase of hemoglobin and the number of red blood cells incident to the altitude, the desired changes in the appetite and nutrition are more readily secured. While it appears invidious in this connection to exploit ever so briefly the virtues of any particular climate, it is nevertheless opportune at a time of local sanatoria agitation with the prevailing tendency to repudiate the established facts of climatic influence to reassert the value of the conjoined effects of proper living together with an appropriate climate. As expressed in a previous paper: "If a suitable regimen without the favorable influence of climate is capable of producing a perceptible improvement in very incipient cases, how much greater and more enduring results and in how many greater number of cases, advanced though they be, may be obtained by precisely the same manner of life plus the beneficence of climate. If a system of regimen necessarily incomplete in moist, cloudy regions is good, a well-nigh perfect adherence to its principles in a land of perpetual sunshine, invigorating air, inspiring scenery and blue sky is certainly better."

Recognizing the comparative rarity with which consumption has originated for generations in the midst of certain climatic conditions, and the relative frequency of its development and rapidity of its progress in the absence of these essentials, does it not follow as a logical sequence that climate must irresistibly take its position as an important factor in subsequent efforts to secure arrest. Should we not expect invalids, other conditions of management being equal, to do far better under those climatic influences which have constantly sufficed to prevent the development of the disease than when subjected to the same treacherous conditions which have operated directly in favor of its spread and which will continue to be in force for all time? The same process of reasoning extended in its application to the more remote future of the consumptive, leads inevitably to the conclusion that the individual, once a consumptive and always a consumptive, possesses the inviolable right to be placed, if possible, in the midst of a new and more favorable environment. He is afforded the greatest degree of protection against renewed tubercular activity or reinfection and is offered at the same time facilities for industry and business enterprise with possibilities of advancement and fortune incident to a new country.

CLASSIFICATION OF PATIENTS: 4, THOSE NOT NEEDING SANATORIA.

4. The sanatorium management in appropriate climates as opposed to the so-called home treatment in health resorts.

It would seem that climatic conditions being the same the solution of this problem should be made strictly with reference to the relative degree of success possible to be attained in establishing and maintaining a perfected system of disciplinary régime under which is properly included outdoor living, rest and superalimentation. It is true that these three elements constitute the cardinal principles of treatment in any climate and are indispensable for the accomplishment of the best results. Were these the only essential factors involved in a question relating to the lives of unfortunates, but nevertheless human beings, the decision would be quickly made in favor of the superiority of the closed sanatorium régime in its fullest interpretation on some remote hilltop or isolated mountain side. The fact remains that the consumptive, by virtue of his inheritance, his numbers and his individuality, is entitled at least to the provisional consideration of certain other fundamental principles. In spite of his bodily infirmities he remains a human being, and is not to be rounded up in segregated herds and arbitrarily subjected to the same ultra-scientific principles applied to the lower animals, with the only criterion on which concerted action is based being the presence of a definite micro-organism. A problem so delicate can not always, though perhaps sometimes, be fairly adjusted by a summary recourse to its medical and strictly sociologic aspects. The logical deductions from precise scientific facts and their application to the practical problems of everyday life demands that true science in its broadest sense takes cognizance not only of the findings of the bacteriologist, the physiologist and the chemist, but also to some extent at least of the common-sense experience of the clinician who is brought into daily contact with conditions as they exist. Thus it is that while life in a closed sanatorium is perhaps more strictly in accordance with the principles of modern phthisio-therapeutic thought, nevertheless in its special everyday application it does not necessarily conform to the judgment of the medical observer, who is brought face to face with the various conditions and is permitted to note the actual results.

This has long been pre-eminently an age of statistics and statistical observations have by no means been lacking to apparently demonstrate the value of the sanatorium treatment. Without commenting on the peculiar conditions which obtain in many instances in explanation of recorded results and in full appreciation of the manifold advantages of such régime, it is fair to state that the uniformly good results are to some extent due to the character of cases admitted and not invariably inherent to the institution itself. May it not properly be asked whether equal or in some instances better results could have been obtained by the same interested and able medical adviser outside his institution. By as much as it is not the sanatorium alone, but rather the attending physician that determines the influence for good, by just so far must it be remembered that it is not the disease to be solely considered, but the invalid himself. The question of success or failure depends frequently on his ability to adapt himself to unusual conditions, and frequently this strength of character is sadly lacking. The knowledge of this fact should preclude any arbitrary attempt to sink his personal preferences and individuality into a merger of consolidated consumptive interests. The sole claim of sanatorium advocates rests directly on the extent of supervision permitted with reference to details of life. If this is true, and likewise their contention that such institutions are primarily for early cases alone, it would hardly seem that the favored few cases of this incipient character without complications, actually require the degree of personal attention rendered several times a day in these institutions. If close daily supervision of early cases is not fully or invariably demanded for the real good of such cases, if living under the same roof is not actually required, what is to prevent the medical adviser from exercising a sufficient devoted direction for his patient if he so elects in suitable abodes conducted somewhat along the same lines as in well-regulated sanatoria in accordance with the same well-recognized principles but on a smaller scale, and sometimes more to the convenience, happiness, social welfare and material benefit of the invalids? The selection of a residence, as has been my custom for years, meeting all known requirements for the desired purpose as regards location, sunshine, porch room, with frequently outdoor sleeping accommodations, the wise grouping of a chosen few with reference to congeniality, temperamental peculiarities, tastes, stage of the disease and financial ability, the presence of a competent housekeeper, or, if need be, a nurse as well, and finally the continuous oversight of the always accessible medical attendant, must afford a combination sufficient to produce satisfying results. It seems unnecessary to more than mention the improved psychic effect of such an environment, which has indeed a potent influence with a portion of pulmonary invalids, in comparison with that resulting from the heterogeneous assemblage of consumptives in large, closed sanatoria. Is not the idea of a home and genuine home life the true ideal spirit to be fostered in such cases together with a certain judicious amount of medical supervision, this not being permitted to predominate offensively, but nevertheless in existence as a non-intrusive and often silent factor in the constant physical guidance of the temporary household. Inspired by this motive there has been erected on the outskirts of Denver, through the marvelous genius of its

founder, an establishment, The Oakes Home, that is entirely unique in its inception and without a parallel in its peculiar scope, either in this country or abroad. It has been my privilege to send to this institution since it was first built over five hundred private cases with the subsequent results of a most gratifying nature. Here the pervading spirit has been that of a home as implied by its name. It may be very seriously questioned if any sanatorium in any climate can offer to a class of consumptives more of the material comforts of life with more opportunities for improvement than can be obtained in this institution.

This preceding course of remarks is not intended as the slightest reflection on the great usefulness of closed sanatoria even in appropriate climates, but simply as an argument against its invariable necessity. It is not my desire in the merest way to detract from the honor and glory of those who have devoted their lives to a cause so worthy and who are destined to leave a lasting monument to their ability and personal sacrifice.

The line of thought is here pursued simply as a plea that, following their example in its essentials and profiting by their experience, much good can be accomplished even without the aid of their special institutions. The sanatorium whose only approximate boundary is the eastern slope of the Rocky Mountains is presented as offering opportunities for the same medical supervision and regard for detail as practiced within the four walls of any existing institution.

At a recent meeting of the American Medical Association, at the conclusion of a discussion on the management and climatic treatment of consumption, a respected member of the profession arose and with great solemnity and impressiveness, pointing upward, said that from an experience of many years he was assured there was but one climate and one home for the consumptive, and that was to be found in Heaven. Despite the epigrammatic inaccuracy of the sentiment expressed, the dramatic incident nevertheless served to illustrate fittingly the surpassing and never-ending importance of the subject. The great tragedy of consumption continually being enacted with its ever shifting scenes and wonderously pathetic situations on the broad stage of humanity demands for the study and proper interpretation of the parts an eternal vigilance, an infinite zeal and a devotion to the cause to be terminated only when the curtain shall drop for the student himself.

SOME PRACTICAL POINTS ON THE TREATMENT OF PULMONARY TUBERCULOSIS.*

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So much attention is at present being demanded by the prognosis and treatment of pulmonary tuberculosis that a few practical suggestions may be of interest to the members of this Association.

THE EVOLUTION OF TREATMENT.

There is so much uncertainty as to prognosis in different cases and such a wide divergence of opinion as to methods of handling curable cases, that great confusion necessarily exists in the mind of the general practitioner. Some tell us to send our patients to a high altitude, others to a cold climate, while many recommend a warm one; and again, some are in favor of ocean voyages. These various views were strongly advocated for a number of years so that climate alone was considered by many the only essential for the cure of the disease. In a small percentage of cases the results were satisfactory; in very many the histories of the patients after leaving home were too sad to be written. Then arose, from the necessities of the situation, sanatorium treatment, and at first it was believed that such institutions must be established only in certain climates. Consequently, in Colorado, Saranac and Liberty, there sprung up the large, well-known sanatoria, all of which have shown excellent results in the treatment of this disease.

Following the development of this line of treatment of tuberculosis, the physicians of the "Hub" very promptly demonstrated the fact that sanatoria in home climates were as capable of producing good results as those established at points where the climate was supposed to possess all the necessary qualities for cure. Dr. Bowditch led in this movement with the establishment of his sanatorium at Sharon for working classes, and this was quickly followed by the erection of the state sanatorium at Rutland. These institutions have accomplished wonderfully good results, and the consensus of opinion and the weight of clinical evidence are in favor of treating tuberculous patients in an institution where all the régime and environment are conducive toward not only building up Nature's reserve forces, but inculcating in the patients a knowledge of the rules of living.

When we examine statistics, however, we ascertain that only about 10 per cent. of people attacked with this dread disease are able to avail themselves of the advantages of treatment in such institutions, and that, therefore, 90 per cent. run the risk of allowing the disease to develop from an incipient or curable stage to an advanced or incurable one. How often does the family physician, when advising a patient to leave home, meet with the remark: "Doctor, I can not leave home," or, "Doctor, I can not leave my business; I must take my chances." What lessons have we learned by the results attained in sanatoria in different climates, referred to above, that may be practically applied by the family physician to the treatment of this large percentage of patients who can not be sent away? Home treatment should be based on three factors: hygiene, diet and various forms of treatment which are being gradually evolved by experiment in sanatoria.

HYGIENE.

The majority of patients that come under our observation, suffering from pulmonary tuberculosis, give histories of non-hygienic surroundings, which are naturally much more manifest in the environment of the poor than the rich. All live in imperfectly ventilated rooms, especially at night. They should be taught to live, during the daytime, in rooms where the temperature is between 60 and 65 F. and thoroughly ventilated. The heating of living and sleeping rooms should be systematically arranged. Stoves should be discarded, and, as far as possible, open fireplaces and steam or hot-water radiation substituted. At night patients should sleep with open windows, regardless of the weather conditions; their bodies should be protected by covering, but their heads and throats should be unprotected. No heat at all should be allowed during the night, except in very cold weather, when an open fireplace may be used. Dust should not be allowed to gather in the rooms, and patients should be taught to collect the sputa in a proper

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receptacle and subsequently burn it. The hygienic care of the body should be carefully impressed on all patients. Many tuberculous patients are averse to bathing, having a mistaken idea that it is a dangerous proceeding. They should be taught the intimate relation between the action of the skin and the lungs, and instructed to keep the proliferous circulation in proper condition. These patients should be encouraged to take at least two warm baths a week and a cold sponge daily.

Where it is possible they should be encouraged, excepting in inclement weather, to sleep outdoors. The comparatively good results attained by patients who have slept on verandas or open platforms for a number of weeks justifies the belief that the percentage of cures would be greatly increased if patients at large could be brought to this method of sleeping. As far as possible in city homes patients should be advised to sleep on the roofs. It is also well to encourage them to provide better ventilation during their working hours in the various offices or places where employed; and among those who live at home all day we should inculcate the habit of spending as many hours as possible in the open air.

DIET.

Diet is an all-important factor in the treatment of pulmonary tuberculosis. In advanced cases at all times, and in a very few incipient cases when they first come under observation, specially arranged diets are necessary. In 90 per cent. of incipient cases, however, nothing is better than a good "home" table and three substantial meals a day. Plenty of fats, vegetables, milk and eggs should be provided. Patients should not only be allowed but required to consume daily from one to two quarts of milk and from six to eight raw eggs. In addition they should eat as much meat as an ordinary healthy person would consume, regardless of the foregoing articles mentioned. Pastry and sweets should be strictly prohibited. In cases of either acute or chronic gastritis patients should be required to resume the regular diet after the proper treatment has removed these conditions.

The use of liquor in incipient tuberculosis has been as strongly advocated by some authorities as it has been condemned by others. There seems to be abundant evidence, however, that the judicious use of stimulants is of very great benefit in promoting appetite and assisting assimilation of food. Our two best agents for this purpose are whisky, in small doses of one or two drams three times a day, or a Manhattan cocktail half an hour before meals, and ale or stout, preferably the former, during the meal hour. Often patients, who have been losing weight, whose digestion is slightly impaired and appetite uncertain, with the aid of a bottle of Bass' ale will eat and digest a very satisfactory dinner, and, within a short time, there will be an improvement in nutrition and weight.

NEED OF INDIVIDUAL TREATMENT.

To be successful with our patients we must use various methods of treatment as auxiliaries to dietetic and hygienic influences. No general line of treatment can be laid down for even a small majority of patients. We must not expect to successfully treat pulmonary tuberculosis in the abstract, but every case must in justice be treated in accordance with its individual manifestations of disease, idiosyncrasies and complications. Probably it is this individualizing of patients that is largely responsible for the comparatively flattering results obtained among sanatorium patients over those attainable in private practice in the same climate. Patients frequently present complications of one sort or another demanding treatment in order to remove conditions which, if allowed to remain, will greatly interfere with the fight for life and restoration to health. I will refer here only to some of the more common phases of this disease and its complications requiring such auxiliary treatment.

THE UPPER AIR PASSAGES.

It is astonishing how a large percentage of even incipient cases of pulmonary tuberculosis present lesions of more or less severity in the upper air passages, and it is a question whether quite a number of patients may not attribute their trouble primarily to conditions of the nose and pharynx which have, by reflex irritation, created a nidus for pulmonary infection. Chronic congestion or infiltration of the arytenoids, if discovered early, may be easily cured by prompt local treatment. Unrecognized, such a case, at least in a fair majority, either leads to fatal laryngeal conditions or is the indirect cause of prevention of cure of incipient pulmonary lesions. Statistics show that not less than 25 per cent. of persons suffering from pulmonary tuberculosis have more or less involvement of the larynx and nasopharynx. Of this number 38 per cent. present congestion or infiltration of the arytenoid cartilages, interarytenoid space, ventricular bands or vocal cords; 32 per cent. show ulceration in one or more of these places, most frequently on the cords or interarytenoid space; 30 per cent. have some abnormal conditions of the nasopharynx. The nasopharynx and larynx should be treated locally, all foreign growths should be removed and abnormal conditions remedied before we can expect to accomplish satisfactory results in the main or pulmonary disease.

Then, again, we have a condition of sepsis, indicated by elevation of temperature, rapid pulse, night sweats and loss of flesh. Temperature is best controlled by rest, cold sponging or inunctions of guaiacol applied to the axillæ or groins. In selected cases we can administer fever capsules composed of phenacetin, acetanilid and quinin, two grains each. As for the rest treatment, it will be found very valuable even when the temperature reaches only 100 in the evening. Night sweats are best controlled by the old-fashioned remedy, atropin. Agaricin has been used in many instances with favorable results, but has more often failed in my hands. With respect to night sweats and temperature it must be noted that these are, generally speaking, due to sepsis from mixed infection, and we can often control the amount of secretion by antiseptic inhalations by ichthyol, creosote or any of its derivatives. The internal administration of creosote and some of its derivatives has a very beneficial effect on sepsis, but its symptoms are best controlled and the condition removed by the internal administration of ichthyol in very large doses. This drug has been used very extensively among the profession, abroad and in America, for the past seven or eight years with very excellent results. It should be given in doses of thirty grains three times a day.

COUGH.

Cough is best controlled by one of two drugs, heroin or codein. Morphin should always be avoided. Codein is given in doses of one-quarter of a grain every three hours during the day and at bedtime if necessary; heroin given in doses of one-twelfth grain generally accomplishes the same purpose aimed at in the administration of codein. However, it must be stated that heroin acts favorably only in about 50 per cent. of cases.

There are various other drugs, none of which deserve serious consideration, as they are usually advertised by agents commercially interested in their purchase.

Another complication requiring special attention in the treatment of pulmonary tuberculosis is that of more or less chronic gastritis, and often dilatation of the stomach. In such instances all medicines should be discontinued and a careful analysis of the contents of the stomach should be made after a test breakfast. Where hypochlorhydria exists this should be corrected. In the majority of instances, however, the most desirable method of treatment is stomach lavage about three times a week, and, in cases where dilatation exists, this should be followed by Einhorn's electrode. We must remember that the necessary overfeeding of our patients will periodically give us more or less gastric disturbance, and that this condition must be removed before we can expect any good results in the way of hypernutrition.

THE BLOOD.

Some observers have stated that there is a condition of anemia which antedates the development of tuberculous infection. While not willing to assume, at the present time, that this assertion is not correct, I simply wish to state as a matter of record that, according to data compiled during the past year, forty-two cases showed that pure tuberculous disease itself, whatever its seat (Cabot), has no effect on the blood, that fluid being normal in every instance; second, that sixty cases would seem to show that the *Diplococcus lanceolatus,* associated with the tubercle bacillus, is the primary cause of the severe anemia; third, that twelve cases showed that, when we have a case of tuberculous diarrhea, it is the drain on the body albuminoids and not the tuberculosis which is the cause of the severe chloranemia met; fourth, that the slight rise in temperature we often get in pure tuberculosis has not the slightest effect on the hemoglobin; fifth, that the temperature we get in mixed infection drains the red corpuscles of their vitality and lowers their number; sixth, that in mixed infection, with cavity and moist râles, and secondary anemia with leucocytosis, seventy-five cases showed the polymorphonuclear cells increased at the expense of the leucocytes, the leucocytes being of the large variety. But when the moist râles disappear and the cavity dries up leucocytosis disappears. Seventh, the blood of pulmonary hemorrhage does not show any nucleated red cells.

Where anemia does exist it must certainly be corrected before we can expect good results from other treatment. Good diet, outdoor life, the intelligent administration of iron and arsenic combined will generally prove efficacious. Static electricity is a very powerful agent in improving nutrition when given in conjunction with one of the foregoing remedies.

Hydrotherapy is also a very powerful factor in placing the victim of incipient tuberculosis in a condition to overcome the disease. In all large cities, and in many small ones, there can be found hydrotherapeutic establishments where patients can be sent and treated two or three times a week.

THE LIGHT TREATMENT.

During the past few months the attention of the profession has been very strongly attracted toward the good results possible to obtain in the treatment of pulmonary tuberculosis by different light rays. We know how efficacious are the ordinary rays of the sun toward destroying the virility of the tubercle bacillus, and that six or seven hours' exposure will render innocuous the most virulent sputum. Beneficial results of light in living and sleeping rooms are too well known to be mentioned here. It is generally conceded that patients living in sunless rooms will never—no matter how favorable their other symptoms—recover from tuberculosis. Light may be applied by the general practitioner in the simple form of sun rays to the bared chest; the patient selecting certain hours of the day, stripping to the waist and gradually tanning the chest as freely as the face. When possible, instead of using this mild form of light treatment, it is better to give them exposures to the rays of the arc light. Very beneficial results have been obtained with the arc light at my hands in cases of mixed infection and in some of empyema. Pus products very soon show a marked decrease.

The most powerful light rays at our command at the present time are very properly called the "*x*- or unknown rays." They are far more searching, their action is much more powerful and good results are obtained in a much shorter space of time in the treatment of carcinoma. With this treatment we are, to a large extent, groping in the dark. At present it is not a safe agent in the hands of the general practitioner unless he has taken a special course of training in the physics of the *x*-rays.

It is now a demonstrated fact that the *x*-rays are a specific form of treatment in external tuberculosis as well as carcinoma. In the writer's hands both external carcinomatous and tuberculous growths have been thoroughly inhibited. It is impossible to state at the present time whether the results obtained by different observers in this direction will be more permanent than surgical interference, but there is strong reason to believe that they will. The treatment of internal disease, whether of carcinomatous or tuberculous character, has not been as well demonstrated as that of the external variety, but from the present indications it is to be hoped that very many cases of both of these diseases can be radically cured. The question before the profession at the present time is whether the *x*-rays lose any of their power in passing from healthy tissue to diseased tissue; or whether sufficient force and penetration can be employed on internal diseases without destroying the intervening healthy tissue? If this can be accomplished we have no reason to doubt that in the *x*-rays we will shortly have our most potent agent in the treatment of pulmonary tuberculosis. Satisfactory results have been obtained in the treatment of internal carcinoma, and as the effect of the *x*-rays on external tuberculosis is so radical, reasoning from analogy, it should be as effective in internal tuberculosis as well as in carcinoma, provided the tuberculous process be sufficiently circumscribed or localized. In carcinomatous conditions of the uterus and in external tuberculosis or lupus, the writer has seen neuralgic pains disappear immediately, the secretion suppressed within a very short time, and the activity of the disease inhibited. Let us hope, therefore, that before long we shall be able to obtain as successful results in the treatment of internal tuberculosis. The technic of *x*-ray treatment should be carefully observed. The tube should be placed about 8 inches from the surface of the body and all areas not to be acted on should be protected by sheet lead and absorbent cotton soaked with water. The skin should not be too rapidly tanned or *x*-ray burned, and in treating the lungs it would be well to alternate the points of exposure. Vaselin can be rubbed on the surface at night. Exposures should be of ten to twenty minutes' duration and repeated three or four times a week. The mucous membranes are more tolerant of the *x*-rays than the skin. Possibly the *x*-rays

may have an inhibiting if not a resolvent effect on tuberculous infiltration or consolidation without cavities.

SURGICAL TREATMENT.

Surgical interference in pulmonary tuberculosis has not heretofore held out much hope. Tuberculous empyema, complicating pulmonary tuberculosis, should always be turned over to a surgeon for proper treatment. Tuberculous cavities lying near the surface or non-specific abscesses, when located near the base of the lung, are subjects for surgical interference. When these cavities are located in the upper lobes it is better to employ intratracheal antiseptic injections or creosote, or to inject these fluids directly into the cavity with a hypodermic needle through the chest walls.

Compression of the lung by nitrogen gas can be passed over in a few words with the following comment: It is applicable only when no pleuritic adhesions exist or where, if they do exist, they can be broken down with a legitimate amount of pressure.

SERUM TREATMENT.

Finally, the treatment of pulmonary tuberculosis by different sera must be referred to. After a number of years of trial this form of treatment is still in the experimental stage. In cases of mixed infection antistreptococcic serum, in doses of 15 c.c., will act as a specific against streptococci, thereby reducing temperature and sepsis and greatly stimulating the patient's nutrition. Two or three injections are generally all that is required.

Antitubercle serum undoubtedly possesses, in selected cases where mixed infection is not marked, the power of stimulating nutrition and, by increased phagocytosis, aiding in the removal of the tuberculous deposit and temporarily, we know not for how long, increasing the resisting power or partially immunizing the patient.

25 East Forty-fifth Street.

SYMPOSIUM ON TUBERCULOSIS.

Two articles of this series have previously appeared in THE JOURNAL. *They will be found in the issues of November 22 and 29.*

The remaining articles will be continued in succeeding issues as follows:

Recent Investigations Concerning the Relation of Human and Bovine Tuberculosis. D. E. Salmon, D.V.M., Washington, D. C.

The Intertransmissibility of Human and Bovine Tuberculosis: A Review of the Experimental Evidence. R. R. Dinwiddie, M.D., Fayetteville, Ark.

Discussion on the above seven articles.

Sanitary Measures for the Prevention of Tuberculosis in New York City, and Their Results. Herman M. Biggs, M.D., New York City.

Discussion.

THE MICROSCOPE IN THE DIAGNOSIS OF SCARLET FEVER.*

W. K. JAQUES, M.D.

Professor of Chemical and Microscopical Diagnosis, College of Physicians and Surgeons; Director of the Laboratory, Chicago Health Department.

CHICAGO.

Since Dr. W. J. Class[1] called the attention of the medical profession to the causative germ of scarlet fever, I have been in a position to learn the value of the microscope in the early diagnosis of this disease.

In the year 1894 there was established at my residence by the Chicago Health Department a sub-laboratory for the examination of cultures from anginas. It was at first only intended to assist in the diagnosis of diphtheria, but it was soon found that the culture gave more or less valuable evidence in almost every disease which attacks the respiratory tract. In differentiating influenza from other inflammations it is invaluable. The extensive use of the culture has demonstrated to me that the term pneumonia is a general one, and that there are several germs that are capable of causing a pneumonic condition in the lung tissue.

The term pneumonia is as indefinite as that of tonsillitis. While the lung tissue is so constructed that a certain train of clinical symptoms follows the invasion of any one of these germs, the prognosis and treatment largely depend on the nature of the invading germ. La grippe pneumonia, tubercular pneumonia or typhoid pneumonia represent distinct and characteristic conditions. Through the Health Department Laboratory I have been in touch with the various prevailing infections in my part of the city, and have examined yearly more than a thousand cultures.

Dr. Class made his announcement at the beginning of what has since proven to be the most extended epidemic of scarlet fever Chicago has ever known. During the previous four years I had become familiar with the nature of the inflammations caused by the *Staphylococcus albus,* and as soon as Dr. Class called my attention to the coccus he described, I found that it differed in many important respects from the *Staphylococcus albus.*

The Class coccus was at first limited to the cultures from those who were suffering from scarlet fever. I soon noticed that it was also found in the anginas of nurses or attendants who had come in contact with the disease. In those who were immune from previous attack of scarlet fever it was capable of causing only an angina.

Unless the bacteriologist is familiar with the Class coccus he would take it for a vigorous growth of the *Staphylococcus albus,* but a study of several cultures of the organism extending over some days will reveal its individual characteristics. These are so peculiar that it is difficult to place it in any class of bacteria. It is very sensitive to environment and is modified in form so it may appear as a diplococcus, a streptococcus or a strepto-bacillus, merging from one to the other in the same culture. Only by studying many cultures can one appreciate this variation in form. It also has a wide variation in size—from a point which can just be distinguished with an oil immersion twelfth to (in old cultures) a coccus a third the diameter of a red corpuscle.

The multiplication is by division and it multiplies in all of its varying sizes. Because of its minute form it can penetrate almost any tissue of the human body.

The shape, as usually seen, is round, with what appears to be a hole in the center. This is due to refraction or to staining qualities. As the germ increases in size a dividing line may be seen in the center. In the older cultures, where the coccus is large, on each side of this center line the cell substance stains in the shape of a crescent with the points toward the line. It is very susceptible to environment and is often seen to assume the streptococcus form or to become egg-shaped and sometimes almost a bacillus. These are a few of the important characteristics. A more extended description has been given by Drs. Class, Wynkoop and Jaques.

Before one is able to understand the value of microscopic evidence in the diagnosis of scarlet fever, one must appreciate that the scarlet fever germ is a pathogenic organism which requires a susceptible condition in the patient to permit its entrance into the blood and tissues, where it multiples and produces the disease known as scarlet fever. Individual resistance and because one

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* Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Hygiene and Sanitary Science, and approved for publication by the Executive Committee: Drs. Arthur R. Reynolds, George Cook and Heman Spalding.

1. Medical Inspector, Chicago Health Department.

such invasion produces a life immunity, causes the larger part of the race to be immune against this disease.

The presence of immunity is an important factor in weighing microscopic evidence. Children who have had scarlet fever may be exposed to the infection and an angina result. A culture from this angina might show the scarlet fever coccus present, but because of the immunity due to a previous attack scarlet fever would not follow.

Only a small per cent. of the human race is susceptible to the invasion of this germ, and when it is present, even in large numbers, scarlet fever will not result unless the required susceptibility is present. The following is an illustration: A case of scarlet fever had been diagnosed as rheumatism. The patient, when I first saw her, was scaling profusely; large patches of epidermis were peeling from all parts of her body. Her infant, of two and a half months, which had nursed all through the disease, escaped until three months after, when it began teething; it then became infected and suffered with a severe form of scarlet fever. This case was also observed by another physician.

Each pathogenic germ has its favorite tissue to invade. Certain individual characteristics of the germ, the position and function of certain tissues favor this entrance. Hence we have the distinct parasites of the alimentary canal; those of the mucous membrane, etc. While germs have their favorite entrance to the body, other tissues may become susceptible and be the seat of disease. The clinical symptoms in the different tissues may be entirely different.

This is illustrated in tuberculosis. While the pulmonary tissue is the one most invaded, a joint, a gland or other tissue may become susceptible while the lungs possess immunity.

The clinical symptoms not only depend on the nature of the germ, but also on the tissue invaded. The pneumococcus may be able to invade the cerebrospinal fluid and produce a disease entirely unlike its invasion of the respiratory tract. The Class coccus may infect wounds, cause anginas and, as I have seen in one case, be the causative germ in pneumonia; but it only causes scarlet fever when it finds a susceptible patient whose blood permits sufficient multiplication to produce the disease.

Therefore, when a malignant growth is found in a culture from an angina, it is evident that the patient has suitable conditions in the mouth for the multiplication of this germ. The history of exposure, the absence of a previous attack, the age of the child and the constitutional symptoms, all give important evidence when combined with the growth of the culture and indicate whether or not the germ will invade the blood and cause scarlet fever. Thus, the combination of clinical and microscopic evidence will often make a diagnosis possible before the appearance of the rash. During the past winter I have been able to warn many physicians from the culture alone that the patient would probably have scarlet fever.

The entrance of the infection is usually through the mucous membrane of the throat, though it may gain entrance through wounds and is especially dangerous when introduced through the genital tract during parturition. The blood is the agent which distributes germs throughout the body. After they enter the blood stream the safety of the individual depends on the ability of the fluids to prevent multiplication and the tissues to resist the effects of the irritating germs. While at times there is a selective action, as a rule the severity of the case and the intensity of the rash are indicated and correspond to the rapidity with which the germs multiply in the culture.

The stay of the coccus in the blood of those who recover must be very short and the time to obtain it is just before or while the rash is appearing. The blood, possessing germicidal powers, is the first tissue to rid itself of the germs, and it also becomes an active agent in destroying them in the various tissues. The skin is highly vascular and its layers are continually moving toward the surface, where they pass off in scales.

The surface of the scarlet fever coccus possesses a gluey property which favors its collecting in the finer capillaries of the skin. Its irritating qualities soon cause congestion which cuts off the bacteria in the superficial layers of the skin from the destructive action of the blood. When desquamation ensues the scales are filled with the scarlet fever coccus.

Laboratory workers have found that one way to increase the malignancy of a germ is to infect an animal and when the resulting infection is at its highest to again obtain the germs. In scarlet fever the skin is filled with germs at the height of the infection, and these are distributed through the scaling epidermis to infect other individuals.

It was pointed out long ago that the blood is the fluid in which the infection of scarlet fever multiplies. In the Class coccus we have a germ capable of passing through the mucous membrane into the blood and out again through the skin. As before stated, the susceptibility of the blood is essential in the production of scarlet fever.

As the rapidity with which the germ multiplies in the culture is of such value in making a diagnosis, some method by which this may be observed should be used. The test tube from which germs are removed by a platinum wire is not suitable. The metal culture boxes used by the Chicago Health Department for the diagnosis of suspected diphtheria are much the best. These permit the pressing on the surface, after a few hours' incubation, of a sterile cover glass and when it is removed it contains on its surface an imprint of the bacteria on the culture medium. Then the smear may be fixed and stained. This method shows all of the bacteria present and makes it possible to estimate which germs have multiplied most rapidly. The presence of the Klebs-Loeffler bacilli is easily noted. This method is of especial value in diagnosing the mixed infections so often present in anginas.

During the early part of this epidemic the diagnosis of scarlet fever could be made from the culture with more certainty than later when the disease became widespread. The whole city seemed infected, and many children, as well as adults, who possessed slight susceptibility had anginas in which the Class coccus was the causative germ.

My four years' study of the Class diplococcus may be summed up as follows: If a child has never had scarlet fever and the clinical symptoms are present (such as characteristic angina, vomiting, delirium and high temperature) a rapidly-growing culture of the Class coccus from such a case determines the presence of scarlet fever, while its absence excludes the disease. In some cases the culture has decided the nature of the disease before the rash was observed, the patient isolated and others protected. In other cases where the rash was present but the clinical symptoms obscure, the absence of the Class coccus decided the case as not scarlet fever. In mixed infection, where germs of scarlet fever and diphtheria are both present, the microscope is of life-

saving importance, as the more prominent symptoms of scarlet fever may obscure those of diphtheria.

In the diagnosis of scarlet fever the fact that the clinical symptoms are so prominent and unmistakable should not blind the physician to the fact that the microscope will give most valuable evidence, both as to the malignancy and the associate infections.

4316 Greenwood Avenue.

DISCUSSION.

DR. SENECA EGBERT, Philadelphia—There used to be some hesitation in the East about accepting the diplococcus of Class as the cause of scarlet fever. I think that the evidence submitted to us in this paper should help to remove the doubt. Dr. Jaques shows that a hidden danger may lurk in unsuspected scarlatinal anginas. All these cases should be carefully looked after, not only in the interest of the patient but in that of others who might acquire the infection.

DR. H. O. MARCY, Boston—How are the germs isolated and developed? Can the diphtheria and scarlet fever germs be grown together? Are there any prophylactic means by which we may hope to modify scarlet fever?

DR. H. D. HOLTON, Brattleboro, Vt.—I should like to ask if the author can differentiate by the examination of the germs between rötheln and scarlet fever.

DR. JAQUES—Yes; it is possible by means of the test to exclude rötheln.

As you will observe, I have been very conservative in my paper. I recognize the fact that the profession has not accepted the Class coccus as the causative germ of scarlet fever. To me it is as clearly the cause as the Klebs-Loeffler is of diphtheria or the pneumococcus is of pneumonia. I have given you a record of my observations with the hope that others may be able to profit by them. I believe if they will study this germ as I have studied it, they, too, may be able to obtain the most valuable evidence from the cultures of scarlet fever anginas. In more than one hundred cases I have been enabled to diagnose scarlet fever from the culture before the appearance of the rash. I have faith that if others follow similar methods they also may be able to have like results.

The Class coccus is not pathogenic to many animals, and this increases the difficulty of producing a curative serum. It multiplies with great rapidity and I am inclined to think it destroys by its multiplication and resulting complications rather than by its toxin. We must have a toxin to produce an antitoxin, and I now believe that the greatest hope of controlling this disease is in a prophylactic stimulation of the exposed person's cells. As a rule one attack of scarlatina produces a life immunity. Each individual cell of the recovered individual possesses great power of resistance toward the scarlet fever germ, and this resistance does not become sufficiently lowered during the life of the individual to permit a second invasion of the germ. If in some way the resistance of a child's cells could be increased when it is exposed to the disease, there would be a temporary immunity. The Chicago Health Department has made some experiments along this line, but the results have not been definite enough to publish.

In reply to the matter of the blood infection, I will say: It seems incomprehensible that this germ should be the causative germ of scarlet fever and have escaped the observation of thousands of trained bacteriologists. I can only account for it in two ways: first, that it so nearly, in its early growth, resembles that most common germ, the *Staphylococcus albus;* and second, because of the attempt of bacteriologists to make every pathogenic germ comply with Koch's law. We are now breaking away from this, and we are certain that the *Bacillus typhosus* is the causative germ in typhoid fever, even if it does not comply with Koch's law. We are also appreciating that each pathogenic organism is a distinct living being with its distinct laws of development. Because of these distinct properties and characteristics, it is able to invade certain tissues. Our success in the control of these germs depends on a complete knowledge of each germ. Think for a moment of each of the well-known germs of disease and see how each differs in its properties and methods of causing disease. Therefore, we must expect that the organism which is capable of causing scarlet fever will have its own distinct characteristics. I hope that when the exact position of the Class coccus in the bacterial flora is worked out, we will be able to find some weak spot in its life cycle or some method of increasing the defense against this scourge of childhood.

DR. S. A. KNOPF, New York—I would like to ask whether the author of the paper has ever tried to verify his experiments with monkeys; if not, I would suggest that it should be done because of the valuable information that has been gained with these animals in regard to other serums. I would like to see the modus operandi described a little more in detail, and would also wish to inquire whether an examination of the blood would not be more satisfactory.

DR. JAQUES—We have no monkeys in Chicago we can employ in that way.

It is difficult to get the germ from the blood because of its germicidal action. It must be taken from a vein during the appearance of a rash and at once mixed with a large amount of bouillon. I have never been able to develop it from blood spread on the surface of culture media.

DR. KNOPF—What culture medium is used? Has any plan been devised by which the physician can collect the germs himself, and send them to the board of health, as is done with diphtheria germs?

DR. JAQUES—Certainly. The culture medium is the same, and the suspected material can be sent in the same way, and the answer given by telephone if necessary, which seems to me a matter of considerable importance, as it lets the physician know at once whether he has got to deal with a case of scarlet fever or must look for indications of diphtheria.

DR. D. T. NELSON, Chicago—There is a thought in my mind which I may not be able to make clear, but I think it raises an important point, and I should like to state it. Vaccination is infection with a disease, the same, but a milder form of smallpox. Now, smallpox you have but once, as a rule. So also with yellow fever, you have it but once, and the same is true of other diseases. Now the point on which I desire enlightment is this: Is scarlet fever a disease which we are to cure by antitoxins or prevent by vaccination—whatever that means, which I confess I do not know? Are we to use vaccination as we do in the case of smallpox, or antitoxin as we do in the case of diphtheria? And is yellow fever to be prevented in the individual like smallpox by a kind of vaccination, or like diphtheria, to be cured only when contracted by an antitoxin?

DR. JAQUES—As I have indicated, I think the *Diplococcus scarlatina* is a distinct organism and that it has its own methods of multiplying itself and acting on the body. Each of these different organisms has to be fought in a different way and by different methods. I do not yet feel justified in saying that we have hope of discovering an antitoxin for scarlet fever. I have seen it reported, however, that a European physician has succeeded in curing a patient by serum taken from another person who had recently recovered from scarlet fever. There would, of course, be manifest difficulties in taking serum from the human body apart from the danger of transmitting syphilis and other diseases. I merely mention the fact to show what is being done in an experimental way. I hope that some day we will find an animal that will produce a suitable serum.

A French observer, Bougald, claims to have discovered the germ. In regard to the experiments on the pigs, I may add that the toxin was injected into other animals, and that they all took the disease.

DR. BENJAMIN LEE, Philadelphia—Can two germs be found in the same individual?

DR. JAQUES—Yes, the germs of scarlet fever and diphtheria can frequently be found in the same person, and this renders it important that we should ascertain what germs are present. I believe that many deaths attributed to scarlet fever are really due to diphtheria.

DR. A. R. REYNOLDS, Chicago—The Chicago Department of Health hopes to carry these studies further. At present we have not the necessary funds, but as soon as we get them we

will go into the country and conduct the experiments. Our experiments in the city, as you have heard, were interfered with by the outbreak of scarlet fever in adjoining buildings. This made the results we obtained open to some question. I hope in future we will be able to report experiments conducted under more satisfactory surroundings.

DR. MARCY—What age were the pigs?

DR. JAQUES—About nine months.

THE TREATMENT OF FRACTURES OF THE LOWER END OF THE RADIUS.*

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The modus operandi of reduction in fracture of the lower radial end depends, as in all fractures, on the type of displacement. In the majority of cases the fragment is directed upward so that there is a dorsal prominence. The joint not being concerned in such cases, generally called typical Colles' fractures, the shape of the deformed wrist resembles that of a bayonet or a fork. The Roentgen rays have shown, however, that the upward displacement, as a rule, is associated with sideward displacement, generally in the outward direction, causing radial inversion and consequently slight shortening of the radial axis. In such cases the clinical diagnosis is not difficult. The lower fragment pushes toward the dorsum, at which a prominence is seen, near the wrist, corresponding to a groove at the site of the upper end of the fragment. The upper (diaphyseal) fragment presses against the flexors, producing a prominence further upward. The greater the prominence, the shorter the radial axis. Crepitus is, even in these typical cases, often absent. In a small number of cases the direction of the displacement is found to be toward the ulna, even if the diaphysis is not kept in pronation.

There also are a number of cases observed by myself, as well as by others, where the lower fragment is turned backward around the transverse axis. Sometimes the sagittal axis of the lower fragment is turned around. The oblique type (triangular fragment like the fracture en bec de flûte), in which the joint surface is split, has never been recognized before the Roentgen era. Figure 1 shows the flat upper surface of the lower fragment slightly turned inward in a case of this type. The detachment of the posterior border of the joint surface is rarer. Roberts also observed forward displacement of the fragments.

By being upwardly dislodged the carpal end is brought into slight supination, while the diaphysis is in decided pronation. The epiphysis being in very close connection with the ulna, the latter is slightly pushed toward the ulna if the ligamentous connection between the radial fragment and the ulna remains intact. This phenomenon finds its conspicuous clinical expression in the lateral prominence of the styloid process of the ulna.

Wherever displacement demands reposition the assistance of one or two persons is desirable, who should make counter-extension while the surgeon replaces the displaced fragment. After the exact situation of the fragment is ascertained by the fluoroscope, the surgeon knows at once how to replace it on its former and normal position. This is done by making manipulations either in the way of pressing the fragment sideward and turning it, or by putting the wrist at a proper angle, and thus correcting the abnormal direction. It is needless to say that upward displacement requires pressure from above downward, outward displacement pressure from within and inward displacement pressure from without. The triangular type (Fig. 1) generally requires downward and inward pressure.

The following method I found most useful in the majority of these cases: The hand of the patient is grasped as in a firm handshaking by the left hand of the surgeon, while the patient's thumb is held by the right hand of the surgeon in such manner that the thumb of the latter presses the fragment downward

Fig. 1.—Oblique triangular fracture. (Articular fracture en bec de flute.)

while the surgeon's index finger presses it inward at the same time. If the direction of displacement is toward the ulna the surgeon grasps the patient's hand, including the thumb, with his own right hand and pushes the fragment outward with his left thumb while he supports the flexor aspect with the rest of his hand. During these manipulations counter-extension must be exerted at the elbow. If it appears to be impossible to reduce the fragment in this manner, anesthesia must be employed. This manner is sometimes facilitated by placing a book or a piece of wood underneath the ulna at the edge of the table.

I have never failed to reduce the fragments in fractures of this type since the Roentgen rays have become such a reliable adviser. Even in impacted fractures I

* Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Surgery and Anatomy, and approved for publication by the Executive Committee: Drs. H. O. Walker, A. J. Ochsner and DeForest Willard.

could always disentangle the interlocked fragments. If there is a simultaneous injury of the lower end of the ulna showing displacement, special care must be taken to press the fragment in its normal place (Fig. 2). In multiple fractures, even in the much-dreaded Y-shaped variety, the articular arch of the radius may sometimes be restored by repeated efforts of reposition, controlled and corrected by the Roentgen rays. But if this proves to be impossible speedy osteotomy must be resorted to.

After reposition is accomplished a fixed dressing must be employed for the purpose of retaining the fragments in the proper position. This is not always easy. I find that no dressing accomplishes the purpose of retaining the fragments better than plaster of paris, since it adapts itself to the contours of the wrist in any desired

Fig. 2.—Displacement of ulnar end.

shape or direction, and can be adapted to the individuality of each case.

Before the Roentgen era the fear of ischemia and gangrene prevented me from using it immediately after the injury. Now, that the premises of ischemia are known to be wanting as soon as the pressure of displaced fragments is removed, such fear is uncalled for. So, while in former years I applied splints first and resorted to the plaster-of-paris dressing four to seven weeks afterwards, I now apply the plaster dressing immediately after reduction, resorting to the plaster-of-paris splint treatment a week or two later, as the case may require. If the protruding fragment is not reduced gangrene of the overlying tissues may be produced by any kind of dressing. Figures 3 and 4 show extensive gangrene at the dorsum as well as on the palm, which was caused by well-padded splints. But no effort at reduction has been made. There is contraction of the fingers, which has not yielded to treatment yet.

If the direction of the displacement is slightly upward, or upward and outward, a plaster-of-paris dressing embracing the thumb is applied. I find that the

Fig. 3.—Pressure-gangrene, caused by splints. Dorsal aspect.

direction of the thumb influences that of the fragment to a great extent. The hand is moderately flexed at the same time. If gentle pressure of the index finger does not suffice to keep the fragment down, it must be pressed down by a signet or a wooden stick, around which the bandages are wound. After the splint

Fig. 4.—Pressure-gangrene, caused by splints. Palmar aspect.

is fastened with a bandage the fluoroscope shows whether the fragment is in a desirable position. A dorso-palmar as well as a lateral examination must be made, because an antero-posterior view only shows whether the lateral displacement was reduced. The lateral examination also elicits whether there be any upward displacement.

Figure 5, for instance, illustrates an enormous degree of displacement in osteo-epiphyseal separation, followed by great functional disturbance. Dorso-palmar projection showed sideward displacement, but did by no means do justice to the real anatomic state, as it was found by lateral irradiation. The arch of the wrist is highly elevated, stretching the overlying tissues unduly. Four months having elapsed since the injury was sustained,

Fig. 5.—Considerable upward displacement in osteo-epiphyseal separation. (Compare Fig. 6.)

the only remedy will consist in osteotomy. Figure 6 shows the shortening.

If the fluoroscope shows imperfect adaption the bandage must be removed and reposition done over again. Under such circumstances the fragments may be better retained if the thumb is pulled in an outward direction while the hand is shifted to the opposite side. The plaster-of-paris dressing applied in this position resembles the old pistol splint of Nélaton. Of course, the outward bending can be increased ad libitum. A surgeon must not lose patience if his efforts fail several times; by the fluoroscopic guidance he will at last surely find the proper angle, or, in other words, the most suitable position and shape of the dressing or splint for his individual case. One mistake often suggests the best mode of correction.

If the displaced fragment is directed to the ulna, in which case there is generally an outward bending of the ulna present, immobilization is kept up best by turning the hand inward. After a week the dressing must be removed, and if the edema has disappeared a plaster-of-paris splint, molded after the same principles, may be substituted, which can be taken off temporarily, so that massage treatment may be employed if necessary. The essential part of these splints is the encircling of the thumb, which guarantees absolute immobilization.

Fig. 6.—Upward displacement shown by Fig. 5. Palmar prominence and shortening of forearm.

In the case of a woman of 25 years the lower fragment was turned toward the ulna and also around the axis. It goes without saying that this extraordinary degree of displacement showed considerable deformity. Reposition was accomplished without anesthesia, the wrist being immobilized in superabduction. The skiagraph taken through the plaster-of-paris dressing showed that the abduction was overdone, wherefore another dressing was applied in moderate abduction. This position showed the fragment in better coaptation, but there was a tendency of the ulnar side of the fragment to project upward, partially filling up the interosseous space. Elastic pressure, recommended by me in the treatment of metacarpal as well as of metatarsal fracture, also proved to be useful in this case. A small piece of rubber drainage tube (the diameter of a small pencil) was placed alongside the interosseous space and fastened with a small strip of adhesive plaster. Now the skia-

graph showed perfect adaption. That it has spoken truthfully was evident from the absence of any reaction which should have been expected in view of the enormous degree of displacement and by the speedy and blameless recovery.

In the multiple T- or Y-shaped variety there are generally two diverging fragments, one being shifted toward the ulna and the other outwardly. By pressing the fragments asunder, so to say, the diaphysis is made to push itself forward so that it touches the scaphoid bone, the arm consequently being shortened.[1] Here the circular plaster-of-paris dressing in abduction is indicated. After that fragment, which is outwardly displaced, is pressed inward, a pad of adhesive plaster is placed above it. The fragment which is displaced toward the ulna must be shifted in the direction of the radius. To prevent slipping back, a rubber drainage tube is placed between it and the ulna at the dorsal aspect. By gentle pressure it is squeezed down in the

Fig. 7.—Chondro-epiphyseal separation of lower end of radius associated with oblique fracture of lower end of ulna.

interosseous space and kept *in situ* by strips of narrow adhesive plaster, which do not entirely surround the arm. Since this type is intra-articular it is understood that there is always a well-marked extravasation, which may even extend over the sheaths of the tendons, so that palpation is rendered difficult. There early massage is best employed to remove the extravasation.

Among all the different varieties of fractures of the lower end of the radius these intra-articular injuries are most serious. It is only the continuous control by the aid of the Roentgen rays of the proper position of the fragments which will promise a fair result. In the case of considerable comminution a perfect restitutio in integrum can not be promised. A skiagraph taken at the earliest possible moment is a valuable document for the surgeon, since it proves the great difficulty—sometimes impossibility—of perfect reposition of the splinters.

I confess freely that I often thought I had reduced a displaced fragment thoroughly because palpation seemed to give thorough satisfaction. But I was sometimes not a little surprised that the Roentgen plate showed me most impolitely how ill I had succeeded in my alleged reposition. In a former publication on the subject I have advised as a method of self-education to draw an anatomic sketch of one's silent diagnosis and then compare it with the skiagraph. Thus we learn on one hand that we can not always depend even on a highly cultivated palpatory talent, and on the other hand, we are taught to improve the power of judgment by comparing our sketch with the lifelike picture as it is given to us by the Roentgen rays. There is no doubt that the same good results can be obtained by other methods of immobilization, provided they are preceded by proper reposition controlled by the Roentgen light.

The main principles of treatment are the same for the other types of fracture of the lower end of the radius. There are, however, several modifications according to their different anatomy. If in chondro-epiphyseal separation no sideward displacement exists, the antero-posterior exposure shows nothing abnormal, while a side view may disclose considerable upward displacement. This is best treated by gentle downward pressure without using counter-extension and the application of a plaster-of-paris dressing in extension. If a lateral view shows any sideward displacement under the dressing, a pad of adhesive plaster is attached to the skin above the lower fragment and the dressing reapplied.

This is characteristically illustrated by Figure 7, which represents a case of chondro-epiphyseal separation of the radius associated with oblique fracture of the lower end of the ulna. While the deviation of the ulnar fragments appear conspicuously, there is only a very slight inversion of the radial epiphysis noticeable. But it would indicate by no means that so enormous a degree of upward displacement would exist, as Figure 8 shows it by lateral exposure.

In osteo-epiphyseal separation, where the fracture line is not limited to the epiphyseal cartilage, but extends to the diaphysis, a greater tendency to displacement is observed. The principles of treatment are the same as that of the complete fracture described above, since the tendencies to the various forms of displacement are the same.

Fracture of the lower end of the radius associated with fracture of the styloid process of the ulna is rather frequent. My own statistics show that the styloid process is involved in 30 per cent. of the cases. This co-injury was discovered long before Roentgen by Nélaton and Velpeau, and studied especially in this country by Pilcher, Roberts, Freeman, Corson, Thomas, Don, Haughton and Colton. I recommend the circular plaster-of-paris dressing in moderate abduction for this type. Sometimes it is possible to grasp the process and push it back into its proper place. This is easy, provided the process is displaced outward, but in case of inward displacement reposition is much more difficult. I found it useful to press this fragment outward by pushing the dull end of a pencil between the process and the radius and keeping it there until the dressing is completed, the bandages being wound around the pencil. A small piece of rubber tube being also placed there.

A small amount of pressure often suffices to push the fragment into position, while after the elapse of weeks the inversion of the process may cause intense pain on

1. See Fractures of the Carpal End of the Radius, etc. Annals of Surgery, August, 1901.

any effort of bending the wrist, so that removal by chisel may have to be considered.

Fracture of the lower end of the radius associated with fissure of the neck of the ulna is treated after the same principles as the complete fracture of the lower end of the radius. This applies also to fractures without displacement. But if there be displacement—generally outward bending of the fragment sometimes in spiral shape—after reposition a plaster-of-paris splint in moderate abduction is applied. A pad of adhesive plaster is also placed at the outer aspect of the ulna.

Fig. 8.—Chondro-epiphyseal separation of radius, associated with fracture of lower end of ulna, in lateral projection-case, illustrated by Fig. 7.

Should there be any inversion a small rubber drain must be pressed in the interosseous space.

Another co-injury, the transverse fracture of the scaphoid bone, deserves thorough attention. Fortunately, as a rule, but little or no displacement is present, but the character of the injury being intra-articular it is appreciated that there is considerable intra-articular effusion, which is largely responsible for the great tendency to adhesion formation in these cases. The treatment is practically the same as that for the simple fracture described above, with the difference that motion must begin early. It is therefore advisable to remove the circular dressing somewhat earlier than in the other types and to substitute a plaster-of-paris splint of the same shape. This splint may be taken off temporarily every day so that gentle massage can be commenced.

Fracture of the little bone portions (chips), generally of the extra-articular type, are often confounded with contusion or distortion. In such cases massage treatment is manifestly inappropriate; the treatment should be carried on after the principle of the treatment of fractures, viz., immobilization. This should be kept up for at least the first week after the injury and after the little fragments are redressed. Such chips are sometimes not larger than the head of a pin, and if they are separated from the dorsal or palmar surface of the radius they may not be at all conspicuous on the

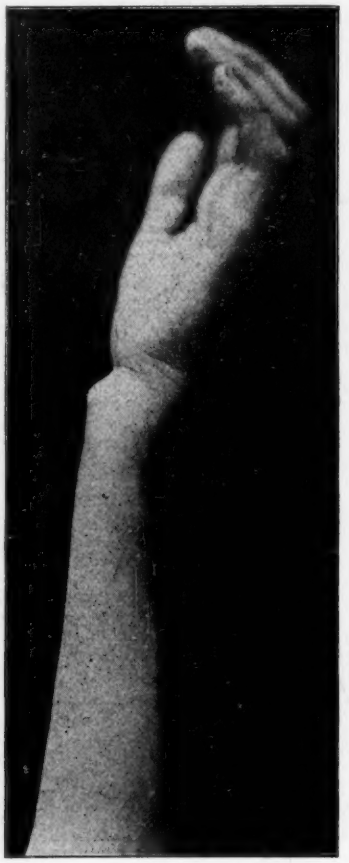

Fig. 9.—Fracture of lower end of radius, followed by overlapping of fragment and palmar dislocation of ulnar end. (Compare skiagraph 10.)

skiagraphic plate, while a lateral exposure will show them.

If the massage treatment so commendable in contusion is used in these cases it is not surprising that the patient becomes rebellious. It is, indeed, not at all indifferent whether a simple bloody effusion or keen-edged bone fragments are kneaded.

If the principles of immediate reduction are adhered to, the "gibbous wrist" will cease to be counted among the inevitable inventory of surgical clinics. Still, I am afraid, this is still a pious wish as long as there are surgeons who imagine that by virtue of their own especially developed palpatory talent they can judge the details of any fracture without the aid of the Roentgen rays. some are willing to use them in "obscure" cases, but they do not realize that the cases which they regard as "non-obscure" would appear in a different light when

skiagraphed. In other words, what they regard to be a simple fracture turns out to be a complicated condition. The paradox may be justified here, that if they would see this complicated condition or the fracture type in its proper light, it might appear obscure to them.

Up to the present the question of correcting the deformities will have to be considered. Two to three weeks after the injury correction is possible by simple refracture. After the lapse of four to five weeks the only remedy consists in osteotomy in the fracture line. Aged persons suffering from deformity of this kind are exempted. If they suffer while motion is made, immobilization is best kept up with a moss bracelet until ankylosis of the wrist has taken place. Sometimes a small wedge must be exsected from the ulna in order to permit of perfect reposition. Such operations must be performed under the strictest aseptic precautions—tearing of the wound edges must be avoided and the

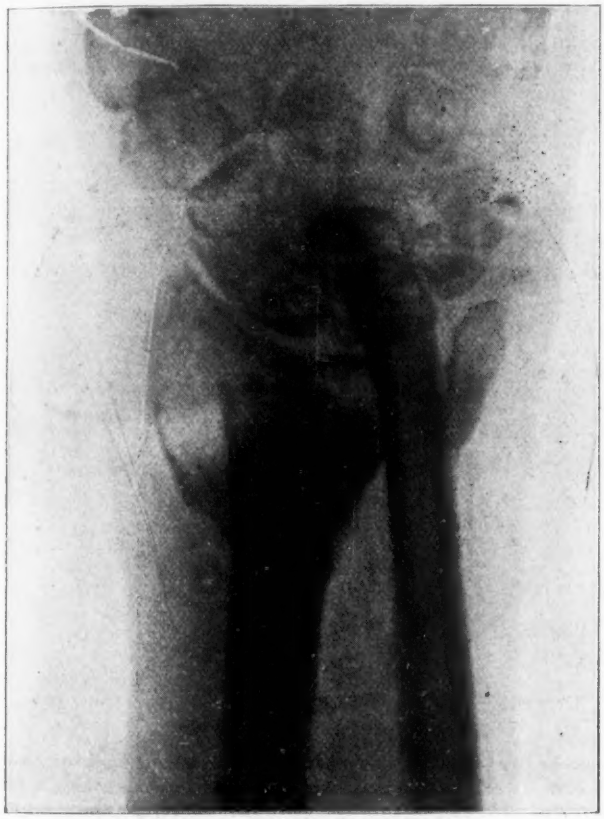

Fig. 10.—Skiagraph of hand, illustrated by Fig. 9.

wound itself should come in contact with the hands of the surgeon as little as possible, since all the work can be done with well-sterilized instruments. If the Roentgen rays show the efforts of early reposition to be unsuccessful under anesthesia, it is much wiser to expose the fragments by open incision at once, than to wait until the tissues around the area of faulty union degenerate. As soon as the bloody effusion is absorbed, the operation should be performed. Isolated bone splinters, the periosteum of which shows no more coherence, must be removed. If the fragments can not be brought into apposition by simple reduction, then the ends must be trimmed properly with wire, saw or chisel, and either indentated or wired.[2]

Figure 9 shows the fracture of the lower end of the radius, followed by overlapping of the lower fragment and associated with palmar dislocation of the ulna. The protrusion at the flexor aspect corresponds to the projection of the diaphyseal end, while the dorsal prominence indicated the riding of the epiphysis. Figure 10 also shows the forward dislocation of the ulna, the extent of which is proportional to the amount of yielding on the part of the epiphyseal fragment. Consequently the arm was shortened. Skiagraph 11, taken through the plaster-of-paris dressing two days after osteotomy, shows the trimmed radial fragments in appo-

Fig. 11.—Skiagraph after operation showing trimmed radial fragments in apposition and the dislocated ulnar portion resected.

sition and the dislocated portion of the ulna resected. Consequently the extremity became an inch shorter.

2. As to the modus operandi, see "Corrected Mal-union," etc., Amer. Jour. of Med. Sc., April, 1902.

Diagnosis of Infantile Scurvy.—The differentiation of this condition from rheumatism, rhachitis, purpura and syphilis rests largely on the following points. Absence of fever. Early, constant pain, first in legs, then in back and arms, increased on motion—child lies with head flexed and rigid. Swelling at lower end of diaphysis of femur, very tender to touch, but neither red nor hot. Later stomatitis, bleeding from gums, nose, bowels, etc. The pathology consists in the anemia and the superiosteal and other hemorrhages. Rheumatism, which is rare under two years, is accompanied by fever and sometimes a red, hot swelling of the joints. Rickets is manifested by chronic painless swelling of the epiphyses and the presence of a rosary and head deformities.—According to Pierson in *Progressive Medicine.*

SARCOMATOSIS CUTIS.*

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CHICAGO.

It would far exceed the time allotted should we attempt to consider the class of true sarcomata occurring within the skin, or all those forms belonging to the class of sarcoid tumors, as mycosis fungoids, lymphodermia perniciosa and leucemia cutis. We will limit ourselves to the discussion of the idiopathic multiple pigmentary or hemorrhagic sarcoma (Kaposi) and the so-called sarcomatosis cutis (Kaposi) and their relation to each other, after citing cases of the first type from our own observation, which, differing somewhat from the usual type, offers some interesting points which tend to show that in the two affections we probably have to deal with an identical process.

A. IDIOPATHIC MULTIPLE HEMORRHAGIC SARCOMA.

CASE 1.—C. L., German, 40 years old, married, has three healthy children. His parents died well advanced in years from causes unknown to him. He never suffered from any illness nor had venereal disease. His present affliction dates from the summer of 1896, when he bruised his left leg on stepping off a street car. Soon afterward his feet began to swell and to become very painful; after a month or two there appeared dark spots and lumps on his feet. In the course of time these increased in number and spread up the legs, while spots developed on the arms and lastly in the groins and armpits. Pain in the feet continued for about two years, especially when he attempted to stand up, so that he was confined to bed, and after that time it subsided so as to be felt in cold weather and then in the lumps only. Some of these lumps disappeared, while others developed.

Examination.—I saw the patient first in October, 1899. He was tall and strong. The mucous membranes were well injected, the nervous and vascular systems, the various internal organs, the blood and the urine were normal, the integument was affected on the extremities only, the feet and limbs were thickened nearly up to the knees, the toes were broadened and clumsy and at the interdigital folds were densely arranged filamentous, horny outgrowths, and on the dorsum of the toes, pea to bean-sized, bluish-red, smooth and moderately firm nodules. On the inner side of the sole of the right foot were three plaques of the size of a quarter, arranged behind each other. The middle one was slightly raised and of a bright red color, which disappeared on pressure. It was beset with horny, thorn-like excrescences. The two others were of a dirty grayish-brown color and were saucer-shaped, smooth, hard and horn-like. Around the malleoli were similar ones. On the dorsa of the feet and over the tibiæ were various round or oval nodules and nodes from the size of a pea to that of a nickel, some bluish red, firm, smooth and round, and others dark blue, soft and compressible, also dark brown, slightly depressed spots and blue ones level with the skin. On the outer aspect of the right tibia in its upper half was a group of about forty dark-bluish pea to bean-sized nodules closely arranged, and bearing on their surface lamellous, easily removable scales. The nodules were compressible. There were two groups of nodules of precisely the same character on the inner aspect of the left tibia. On the inner aspects of the thighs and in the axillæ were bluish-red streak-like spots arranged parallel to Poupart's ligament and to the axillary arch respectively. They were perfectly smooth, not elevated, but the skin beneath was densely infiltrated and scarcely movable above the subcutis. This infiltration extended throughout the affected area and beyond the spots. On the right external epicondyle of the humerus was a bluish-red spot of the size of a dime, smooth, not elevated nor the skin beneath infiltrated and its color did not change on pressure. There was a spot of the same nature on the ulnar side of the left forearm.

Subsequent History.—The patient was soon lost sight of until January, 1902, when he reported that he had suffered from phlegmon on the left leg in the fall of 1899, and from erysipelas of the face in the spring of 1900. Of the lumps some had disappeared without leaving any trace, while new ones had developed. His health during all this time had continued good. The examination of the patient resulted in the same favorable general findings as at the first presentation, but the local symptoms of the skin had somewhat changed. The pictures which I show you were taken at this time. The spots on the arms had increased in size, were darker and slightly elevated, but still movable with the skin. There was also found one red-blue spot of the size of a bean above the one previously described on the epicondyle. It was not infiltrated.

The thickened feet and legs presented the following appearance: Of the three discs on the inner side of the right sole, the middle one lacked the spinous processes in its periphery and was dirty yellowish brown, cornified and of saucer-like appearance, like the other two.

The plaques on the outer aspect of the right tibia which consisted, at the previous inspection, of numerous blue compressible nodules now present a brown and hardened area, flattened in the center, bearing a horny knob-like outgrowth and lamellous yellow-brown scales. The two plaques on the inner aspect of the left tibia had changed in their centers to corneous cauliflower-like formations with dirty yellowish scales on their surface. In the periphery of these plaques are two zones, the inner consisting partly of flat, hard nodules and partly of compressible tumors; the outer, of depressed pinkish skin surrounded by a dark brown line level with the surrounding skin. Besides there were found over the tibiæ brown atrophic spots, flat and dense nodules and compressible ones, and also areas of the extent of a dime to a nickel of normally appearing skin, but which on touch revealed dense infiltration.

Fig. 1.—Case 1.

Over the posterior aspects of the femurs were a number of brown, irregularly outlined, smooth, non-elevated spots of the size of a bean to a half dollar, the skin beneath some of these and somewhat beyond being densely infiltrated. Below the right scapula is a reddish-blue spot of bean size, the last one to appear until January, 1902.

In the groins and in the axillæ the streak-like spots became transformed into chocolate-brown, flat, firm nodules of the size and shape of a bean; with the underlying infiltration remaining.

* Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Cutaneous Medicine and Surgery, and approved for publication by the Executive Committee: Drs. W. T. Corlett, L. Duncan Bulkley and W. L. Baum.

About May 10 of this year the right sole became more swollen and very painful. I saw him a week later and discerned on the diffusely swollen and bluish sole in the metatarsal region five violet nodules from the size of a pin-head to a pea, very painful on pressure, not raised, but distinctly palpable as spherical bodies. During the past year he had felt pain in the older lesions during cold weather only.

Microscopic Examination.—A bean-sized, moderately flat nodule was excised from the leg for histologic examination, the wound healing promptly. Histologic findings as follows: Stratum corneum, lucidum and granulosum well developed, stratum Malpighii somewhat narrowed. The papillary layer is obliterated, especially in the central part of the nodule. The corium contains an abundance of coarse, fibrous connective tissue and within this thin and coarse bundle-like masses of medium-sized or small fusiform cells, especially in the upper strata. These bundles cross each other in various directions.

On the other hand, there are found numerous aggregations of the same cells with scanty fibrous tissue, and more so in the deeper strata. Throughout the corium are numerous lymph-clefts.

Of the blood vessels, which are very numerous within the cell accumulations, some show thickened walls, which thickening is partly due to infiltration of the adventitia to which frequently are attached the streaks of cells and partly to a swelling and proliferation of the endothelium, while other blood vessels have a thinner wall looking as if ruptured. Some are densely filled with red corpuscles which may also be seen extravascularly.

Fig. 2.—Case 2. Smaller nodule.

Large masses of a yellowish-brown pigment are seen among the tissues, especially within the cell accumulations throughout the corium, besides pigment granules intra- and extra-cellularly, all this pigment giving the test of hemosiderin. Elastic fibers stained with Weigert's fuchsin-resorcin were found to be normal throughout the sections. Round cells are found here and there in small numbers intermingled with the others, while they are quite numerous around the sudoriferous and sebaceous glands and follicle sheets.

CASE 2.—H. G. Nothing in his family history has any bearing on his skin affections. He had no venereal disease. Ten years before I saw him his feet swelled and became painful, especially when walking. The swelling subsided to a certain degree, but after a time there appeared dark lumps on his feet and gradually ascending also on the legs, and at last one came on the penis. From time to time certain ones disappeared and others occurred. These lumps were painful on pressure. He complained of nothing else until five years after the skin first became affected, when he experienced difficulty in urination and frequent and painful evacuation of his bladder. This condition became more aggravated until I first saw him in August, 1898.

Examination.—He was short, very emaciated and of sallow complexion, the mucous membranes pale, the lungs slightly emphysematous, the heart hypertrophic, the spleen normal, the prostate gland hypertrophied. There was retention of urine, chronic interstitial nephritis, sclerotic arteries and slightly elevated temperature. The blood showed hemoglobin 65 per cent., reds normal, whites slightly increased in number. The integument was normal except on the penis and lower extremities. On the skin of the under surface of the penis, just behind the glans, was a bean-sized, bluish-red, roundly elevated, firm nodule, movable with the skin and not painful. On the legs, and especially numerous over the tibiæ, were nodules and tumors of sizes from a pea to that of a hazelnut, bluish or brownish, more prominent or flat, solitary and in groups, some soft and compressible with scales on their surface and others firm, while between these were blue and brown spots of various sizes. These were not elevated, but the skin beneath was infiltrated. Some of the brown spots were atrophic.

On the dorsa of the enlarged and clumsy feet were flat, dense, brown nodules of the size of a split pea to a bean. The interdigital folds of the toes were densely beset with rod-like, horny outgrowths like a brush. The inner side of the soles is the seat of dirty yellowish flat tumors, hard and cornified, elevated two lines above the level of the skin, with depressed center and smooth surface and of the size of a nickel to a quarter.

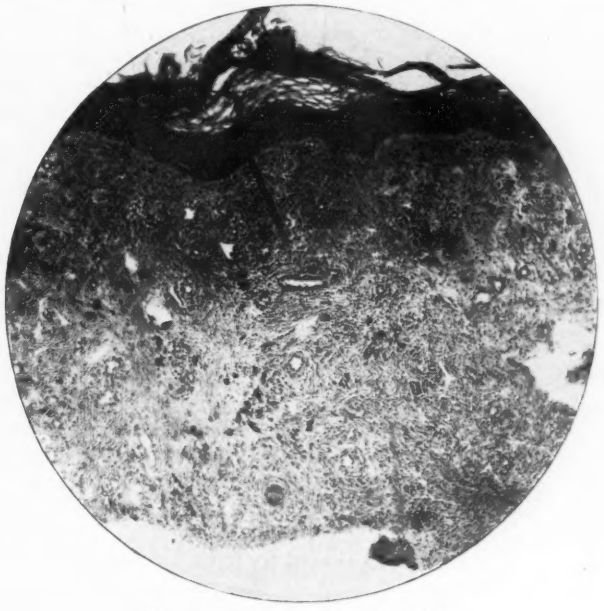

Fig. 3.—Case 2. Larger nodule.

There was a similar one, bean-sized, anterior to the right internal malleolus and two, of the size of a quarter, below the left outer malleolus. There was no enlargement of the lymphatic glands. The patient died from uremia two months after I first saw him.

Microscopic Examination.—Two nodules from the leg, one pea-sized, of recent development and one bean-sized, of quite long standing, both moderately firm, were excised and prepared for examination.

1. In the sections of the smaller nodule: Stratum corneum slightly thickened, stratum granulosum narrow, as is also the stratum Malpighii. The papillary layer has vanished, the subpapillary layer contains wide lymph spaces, as does also the reticular layer of the corium. Throughout the corium, between sclerotic or normal connective tissue, there are round cells intermingled with sparse fusiform ones, arranged mostly in irregular streaks, and here and there in irregular aggregations. Around the glands is abundant round-cell infiltration. In many places the cell bundles are attached to the infiltrated adventitia of blood vessels. These are partly thickened, partly dilated.

There are no hemorrhages nor are there found masses of pigment.

2. Sections of the larger nodule show nearly the same conditions as those of the smaller, but besides there are found blood vessels with very thin walls, and densely packed with red corpuscles. Other free ones are found outside the vessels. There are also numerous masses of yellow-brown pigment and intra- and extra-cellular pigment granules. The cells, of which the round predominate, were arranged in a similar manner to those of 1.

COMPARISON OF CASES.

Comparing the anatomic findings in the two cases we observe in the first a prevalence of spindle cells, in the second of round cells. Both have a hazy, coarse, granular nucleus and a narrow zone of protoplasm. In the upper strata of the corium, in both cases, the bundle-like arrangement of the cells is more pronounced. While we find in the first case blood vessels with very thin walls and in places appearing as if ruptured, and numerous masses of pigment, and the same two conditions in the older nodule of the second case, these are wanting in the sections of the small recent nodule of the second case. In neither case was exulceration of the nodules observed.

Considering now the clinical as well as the microscopical findings of both cases, the diagnosiss of *sarcoma multiplex hemorrhagicum idiopathicum* is justified.

OPINIONS OF WRITERS.

Since Kaposi[1] first reported these cases and applied to them the name sarcoma pigmentosum, the literature of the subject has increased considerably. A very animated discussion arose in regard to the name, inasmuch as this affection in some respects does not correspond to the requirements of a true sarcoma, that is to say, the tumors have a limited growth and may heal spontaneously.

On account of these and from differences afforded by a study of the histologic findings, Kundrat and Paltauf were of the opinion that these cases should be accredited to the group granuloma, which view is shared by other observers. Sellei[2] goes even so far as to propose for them the name granuloma multiplex hemorrhagicum. As if to do justice to both sides of the controversy Kaposi subsequently classed his pigmentary or hemorrhagic sarcoma in the group of sarcoid tumors.

The etiology of this disease is unknown. As early as 1882 de Amicis[3] expressed the opinion that an infectious agent might play a rôle in the development of these cases. Other authors inclined to the same view, but hitherto no proof has been afforded by bacteriologic examination of the diseased areas or by inoculation. Another suggestion as to the etiology has been offered by Campana in his discourse,[11] in which he records a case showing neoplastic infiltration of the peripheral nerves in diseased areas, and therefrom drew the conclusion that the changes in the skin are trophic disturbances.

Semenow[4] arrived at the same conclusion from the findings in one of his cases. There was accumulation of pigment in the spinal ganglia, swelling of the nuclei in the neuroglia and proliferation of the perineurium of peripheral nerves. He assumed to be supported in his view by the symmetrical arrangement of the lesions and the severe pain frequently occurring within them. However, it is well to question this theory on the ground that the skin is affected by the same cause and at the same time as the nervous system, or the latter is affected secondarily.

It seems plausible that this process represents a slowly growing sarcoma which may change secondarily and become malignant and that the question of its etiology will not be solved before that of typical sarcoma becomes known. To speak with Perrin:[10] "We are scarcely in the beginning of our knowledge of this affection." Therefore, we should rather accept the interpretation and the name which the genial diagnostician, Kaposi, has offered and so splendidly defended[5] (1894), and not welcome other names or explanations unless they can be better substantiated.

This affection occurs mostly in males over forty years of age, but has been observed in a patient as young as five years by de Amicis.[6] The diagnosis of idiopathic multiple hemorrhagic sarcoma offers as slight difficulty as its differentiation from other similar affections. The prognosis is unfavorable, although the administration of arsenic improves some cases temporarily, while there are even cases on record[6] where permanent cure has been effected by the hypodermic administration of arsenic. It is of interest just here to refer to a case of Semenow's,[4] in which an erysipelas migrans caused its cure.

B. SO-CALLED "SARCOMATOSIS CUTIS."

Let us now consider Kaposi's so-called sarcomatosis cutis. Kaposi describes it as follows: "On the trunk

Fig. 4.—Case 1.

and extremities there appear numerous bluish, flat or more prominent spots, on the palpation of which there are felt in the depth of the skin firm, elastic, flat roundish plaques, not sharply defined. Besides these, firm plaques are felt over which the skin is neither protruding nor discolored. In one case the plaques were painful; in another on pressure only, and in a third case there were found bluish-red prominent, smooth and firm nodules of sizes from a pea to a hazelnut, besides larger flat plaques with central depression. There were no enlarged lymph glands, nor any alteration in the blood. These cases are curable by arsenic."

The histologic findings are, in Paltauf's opinion, somewhat similar to round-celled sarcoma. Cases of this type were further recorded by Joseph,[7] Spiegler,[8] Tandler[9] and others, but their number remains in the minority in comparison with the numerous recorded cases of hemorrhagic sarcoma.

The histology of different cases differs somewhat, although in most of them similar conditions are encount-

ered, as in the hemorrhagic variety. The horny layer is broadened, the stratum Malpighii nearly normal, the papillary in some places vanished. The subpapillary layer shows sclerotic connective tissue and numerous wide lymph clefts. In the deeper strata of the corium, the real seat of the affection, between scanty, or in places sclerotic, tissue bundles there are embedded irregular masses of round cells (in Joseph's[7] case fusiform cells arranged in rows, infiltration-like), or such cells arranged in bundles or streak-like.

Within the areas of cell accumulation are wide lymph clefts and numerous blood vessels, the endothelium of some of these latter swollen and in proliferation. The elastic fibers are preserved throughout.

COMPARISON OF TYPES A. AND B.

Although he insists upon strict division between the hemorrhagic sarcoma and the so-called sarcomatosis cutis, Kaposi admits that there might be transitional forms between the two, as between all other forms

Fig. 5.—Case 1.

classed by him as sarcoid tumors. But we may go further and assume that this division can not be strict, but that both forms are the same process, with some modifications.

This view is supported by a study of our own cases. The character and arrangement of cells are in both types nearly the same. While it is assumed that the cells are arranged more in irregularly grouped masses throughout the whole corium in the hemorrhagic, and more especially in the deeper strata, and band-like in the form sarcomatosis cutis, yet we really find cases of hemorrhagic sarcoma, as our second one, where the upper part of the corium is only slightly infiltrated. In both of our cases the band- or streak-like arrangement of the cells is prevalent throughout. It is further claimed (Joseph l.c.) that the elastic fibers are wanting throughout the hemorrhage node, while they are preserved in that of sarcomatosis. The fact is that they are unaltered in hemorrhagic cases, too, as is shown in our first case. Let us inquire in regard to the hemorrhages and masses of pigment. We should find them in all cases of hemorrhagic sarcoma, but not in the other form. As above recorded, there were found no strong indications of such in the more recent and small nodule of our second case, while the older and larger nodule showed an abundance of them. From this we may infer that the hemorrhages and pigmentation are of secondary occurrence. The papillæ are in a similar condition in the two forms, and the same is true of the lymph spaces. In our second case the latter were numerous throughout the sections; in the first they were found in the deeper strata of the corium only.

There is as much similarity in the clinical conditions as there is in the histologic. Concerning the clinical symptoms, we may state that in our first case there were found bluish-red spots in non-infiltrated skin, and bluish-red, rounded and firm, flat, or prominent nodules, as well as compressible ones, solitary or grouped, typical of the hemorrhagic form.

On the other hand, there were found characteristics of sarcomatosis cutis, such as bluish or brownish spots on densely infiltrated bases, as those in the axillæ and inner and posterior aspects of the thighs, which infiltration reached into the subcutis and extended beyond the spots in the periphery, also irregular and dense infiltrated areas over which the skin looked perfectly normal.

Blood and lymphatic glands are found to be normal in both varieties. In the hemorrhagic form the skin becomes affected first on the distal ends of the extremities, but there are cases on record where another region took the lead. In the sarcomatosis cutis the skin lesions occur irregularly on the body, but they ultimately affect the extremities. The prognosis is favorable in the sarcomatosis, the cases yielding readily to arsenic, while in the hemorrhagic variety a few cases only are recorded as cured,[6] temporary improvement only being the rule. There seems to be no doubt that the prognosis is rendered less favorable in the latter type by the occurrence of hemorrhages.

CONCLUSIONS.

The result of all the foregoing comparisons is that there is no great distinction between the two forms. It rather impresses one that they represent the same process. While some of the cases do not change secondarily, and are, therefore, more amenable to treatment and cure, the majority are subject to secondary changes, rendering the course unfavorable.

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DISCUSSION.

DR. W. S. GOTTHEIL, New York—I have had a number of similar but more extensive cases under observation for a long time. The rather careful clinical and microscopic study to which I have subjected them would lead me to conclude that there is not so much difference between them as the elaborate nomenclature of their subvarieties would imply. It is a question whether classification is not rendered more difficult by the multiplication of Latin terms, of which our German colleagues

are so fond. Synthesis rather than analysis is what is now required, lest we lose our way in the terminologic forest. For ordinary purposes I recognize three varieties of sarcoma of the skin. The first is that slightly malignant, superficial growth called sarcoid by Boeck. The second is the localized sarcoma, either primary in the skin or secondary to sarcoma of other organs. The third includes the idiopathic, diffuse sarcomas, pigmented or white. In the present state of our knowledge of the subject I do not believe that variations in color, course, etc., justify us in subdividing maladies which are microscopically almost identical.

DR. M. B. HARTZELL, Philadelphia—I have just one word to say of the character of the so-called sarcoma cutis. Personally I have doubted whether all of these cases have a right to be called sarcoma; if so, then they differ from the surgeons' sarcoma. What the surgeons class as sarcoma is rapidly destructive and rapidly terminates in the death of the patient, but the so-called sarcoma of the skin frequently lasts for years. As has already been said by the previous speaker, the confusion in the use of terms is already great enough without adding new names. We ought to be slow to believe that all of the so-called sarcoma cutis is actually sarcoma. I recall a case that was exhibited at a clinical meeting of the American Dermatological Association as sarcoma in which there was simply extensive slate-colored discoloration of the skin extending to the sclera. We call many of these cases sarcoma because microscopically they look like sarcomatous tissue, but they are probably often something else.

DR. LIEBERTHAL—In reply to Dr. Gottheil I wish to say that in my paper there was neither an attempt made to multiply terms nor to introduce new ones. The long Latin name did not originate with me, but with Kaposi, and has since been accepted by the dermatologic world. Therefore, I have no apology to offer for repeating it before a body of dermatologists most of whom have a national as well as an international reputation and are familiar with it and its interpretation. As long as there is no better name suggested and accepted we do well to let the old one stand in order to avoid confusion.

Regarding the remark made by Dr. Hartzell, I would refer to the essay mentioned in my paper in which Kaposi defends his standpoint concerning the name applied by him to the first form. I did not attempt to solve the question of the place to be assigned to it in pathology, but only entered into the consideration of the similarities between the two forms.

Clinical Report.

SEVERE BRAIN INJURY WITHOUT FOCAL SYMPTOMS.

WILLIAM A DAVISON, M.D.
BRIDGEPORT, CAL.

The Injury.—July 8, 1902, at 7 p. m., E. L., male, aged 27, had an iron bolt, with a one-inch square top on its end, driven by direct violence through the vault of the cranium. The bolt cut through his hat and scalp, crushing in at least one square inch of the frontal and nearly as much of the left parietal bones, carrying the fragments deep into the brain substance. A triangular piece of left parietal bone, one inch wide at its base and one and one-half inches long, was broken down and rested on the brain. The front edge of the wound was one and one-half inches in front of the coronal suture, a little to the left of the median line of the frontal bone, extending across the median line probably one-half inch, thence backward across the coronal suture into the left parietal about one inch. It thus made an oblong opening about one and one-half by two inches, with jagged edges.

The brain injury involved the superior portion of the first, second and fourth frontal convolutions, the ascending parietal, the superior parietal and probably the superior sylvian convolutions of the left side, the superior portions of the first frontal on both right and left sides, the superior portion of the ascending, and the anterior portion of the superior parietal lobes of both sides.

Treatment.—The course of the wound was slightly to the left. How deep the bolt penetrated I did not have the necessary curiosity to ascertain, but was satisfied to calculate by the size of the opening that there must be buried in the cerebrum the fragments of a section of bone measuring one and one-half by two inches. The conclusion was verified later. I irrigated and removed all visible bone fragments (save that of the left parietal) and such invisible pieces as were easily detected by gentle application of the probe. On removal of the pieces of bone, brain matter and blood clots came away. The triangular piece of the left parietal was elevated and left *in situ*. The bolt had not remained in the wound.

Receipt of the Injury.—No one witnessed the accident and the patient could not tell how it happened further than that he was leading a saddled horse under a wire clothesline attached at each end to a post—at one end by this iron bolt, which inflicted the blow. The clothesline caught under the pommel of the saddle. The post with the protruding bolt was broken off at the ground and hurled some feet away. The man was thrown to the ground, from which he was seen arising by his wife, who at this juncture happened on the scene. With her assistance he walked fifty feet to his bed.

Symptoms.—Hemorrhage was free but not excessive. There was some shock and for a time semi-consciousness; no loss of

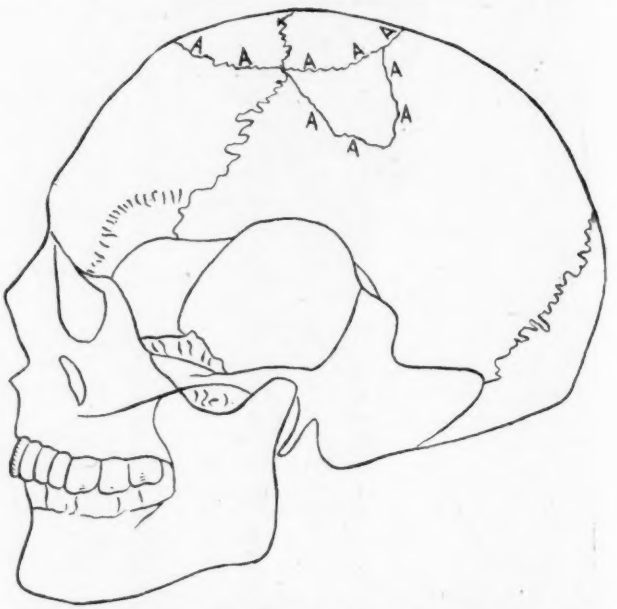

Diagram of injury. The lines marked *A*—*A* represent the skull fractures.

any of the senses. There was an indisposition to talk, but at all times he would speak if urged. There was also acute, lancinating pain in the front of the head, scanty secretion of urine and little desire to pass water for a day or two. I could not say there was paralysis, for the fluid being scanty and high-colored, I did not allow him to retain it longer than eight hours without use of catheter. The bowels were constipated, but yielded readily to purgatives. I did not consider the bladder or rectal torpor more than one often finds with active men confined suddenly to bed. There was no motor nor sensory paralysis at any time, in spite of the fact that he lost at least a tablespoonful of brain substance from the motor area. From beginning to recovery the temperature never exceeded 99.6. The pulse varied from 40 to 70 for the first ten days and was very weak. This was combated with 1/50 gr. sulph. strychnia hypodermically.

After about ten days the pulse rallied and gradually resumed its normal force and activity. There was no change in the pulse beyond its slow and weak action. The pupils were not markedly affected at any time, but for a day or two were probably not so sensitive to light as in the normal state.

After-Treatment.—For several days small pieces of bone presented themselves and were removed. Irrigation of hot borated water, borated gauze dressings and sulph. strychnia as indi-

eated constituted treatment; he was kept perfectly quiet and given liquid diet. Eighteen days after the accident the brain was granulating nicely, and there was a very light discharge of a non-purulent nature. At this time I closed one-third of the scalp wound with a deep silk suture. The mental condition was good, and the patient was doing well in every respect, which condition has continued. The surroundings were extremely unfavorable. From the beginning to the eighteenth day there was not a drop of pus and no antiseptic was used save borax. I was ably assisted throughout the case by Dr. J. H. O'Connor.

Why there were no more symptoms is the strange part of the case. Why the man did not die after such an injury is a surprise, and why he had so few symptoms of injury to the brain substance is a greater one.

Later.—At this writing (September 26) he is to all appearances in his normal health, with unimpaired senses and motor power, and intellectually unchanged.

New Appliance.

A NEW INGUINAL BANDAGE.

JAMES CHAMBERS PRYOR, M.D.
PASSED ASSISTANT SURGEON, UNITED STATES NAVY.
WASHINGTON, D. C.

Several years ago the writer commenced using a bandage which he originated—so far as he knows—and which has at times been called the "Pryor bandage."

METHOD OF APPLICATION.

Standing in front of the patient, and holding a strip of two or three inch roller muslin bandage, two and one-half yards long, and the dressing being in place, the bandage is applied as follows:

1. Apply the middle of the strip of bandage to patient's vertebral column at the waist.
2. Carry ends of bandage forward about the waist.
3. Holding the extremities taut, carry one end entirely around the other, making a "round turn" or an "elbow hitch." The result resembles an X with one of its component parts completely wrapped around the other.
4. After twisting it as described, carry the inner extremity inside and the outer extremity outside the thigh and unite the ends with a knot, safety pin or other appliance.
5. The dressing (which lies under the intersection of the arms of the X, if the bandage has been properly applied) may now be fastened to the bandage with safety pins, and the dressing is complete.

ITS USES AND ADVANTAGES.

As the writer has demonstrated the usefulness of this bandage in practice, in the U. S. Naval Hospitals at New York, Mare Island, Cal., Newport, R. I., and on naval vessels to which he has been attached, he feels that the above description may be of value to those who are using surgical dressings. It is not claimed that this bandage can wholly replace the time-honored and effective spica or figure-of-eight, but in many instances it may be substituted with a real gain in efficieney.

In applying fixed dressings it is not so efficient, but even here it may be used with splints. For checking hemorrhage it forms a most excellent method of compression. With a suitable pad it makes an excellent temporary truss, and at this writing it is being used in this manner on two patients on the U. S. Battleship *Massachusetts*.

It may be applied effectively with a smaller expenditure of material than any bandage known to the writer, the ratio being as one tour of a spica is to a complete spica. Therefore, where economy is a consideration it may be used to advantage. The ease with which it may be applied commends the bandage at once. Its application requires a minimum of handling of the patient. It may be applied as quickly as any known bandage. It is lighter and more comfortable than a spica, and it does not become so wet with perspiration as does a spica in hot weather.

For ambulant or convalescent patients this bandage is not so cumbersome and does not restrain their movements; therefore, it does not interfere with the performance of any light duty for which the patients are not otherwise incapacitated.

Although its application to the groin is the only one here described, its field of usefulness is by no means restricted to the inguinal region. When the principle has once become fixed in the mind its wide range of application immediately becomes apparent, and it is seen how it may be applied in retaining a dressing on a limb, the trunk, axilla, female perineum or genitalia, etc.

The simplicity of this bandage, the facility and rapidity with which it may be applied, and the small quantity of material required, seem to the writer to make it especially adapted to emergency work or to field and military surgery.

SUMMARY OF THE ADVANTAGES.

To briefly summarize, this bandage is 1, economical; 2, easily and quickly applied and with a minimum of inconvenience to patients; 3, cooler than a spica and not so cumbersome; 4, applicable to many parts of the body; 5, a substitute for a truss in hernia; 6, an effective compress, and 7, especially adapted to emergency or military surgery.

U. S. S. *Bancroft*.

Raise the Standard of Fees.—A Western contemporary, the *Alkaloidal Clinic*, advocates a general agreement on the part of physicians to raise their fees in accordance with the enhanced prices of the necessities of life which have obtained of recent years. With some conditions and limitations we heartily vote aye to this resolution. The first condition would be that the fees of the physician are those that should be raised—the physician, we mean, as distinguished from the surgeon and the specialist. The internist, the general or family physicians, constitute the most important but the most neglected class of the profession. We have conspired with the thoughtless and melodrama-loving public to give all the honor and all the profits also to the surgeons and specialists. If the profession is to make any common stand for better wages, it must be for the sake of the general physician. His work is worth just as much as that of the operator, but he does not receive one-tenth, and in many cases, not one-hundredth as much. . . .

In the second place the movement to increase the fee should at first chiefly consider the country physician, as distinguished from the city man. Either because the number of cases is greater or other means of livelihood are obtainable the city physician does not suffer from low and uncollectible fees as does his country brother. The newly-aroused professional consciousness must show conscientiousness and the love of justice, or it will not endure.—*Amer. Medicine.*

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THE HEALTHFULNESS OF COAL MINING.

A number of statements recently made in regard to the unhealthfulness of the miners' occupation suggest a reference to the authoritative utterances on the subject and to statistics. These do not exactly confirm the statements that have been made, and may be a surprise to some who have not investigated the matter. Naturally one would not expect the business of a coal miner to be an especially healthful one; the darkness in which he labors, the frequently constrained and unnatural posture, the dust, the gases and supposedly imperfect ventilation, the fumes of explosives, the dampness, etc., all readily suggest themselves as probable causes of physical deterioration and mortality. In old times the physical strain caused by climbing almost interminable ladders was also a matter to be considered. These factors leave altogether out of account the accidents to which the miner is exposed. It is not surprising, therefore, to most people that the recent testimony before the coal-strike commission should have been so positive as to unhealthfulness of the miners' life—it falls in naturally with their preconceptions.

When, however, we investigate statistics or consult authorities another aspect of the case is forced on us. Aside from accidents, coal mining is said to be a distinctly healthful occupation by those who have considered the subject. Thus Louis[1] says: "Coming lastly to the subject of the diseases of miners, it may first of all be stated that mining is a distinctly healthy occupation. The mortality of all males in Great Britain during the years 1890-92 was 18.74 per 1,000, out of which 0.87 deaths were due to accidents, leaving 17.87 per 1,000 due to what may be termed natural causes. On the other hand, the mortality among coal miners from all causes for the same period was 12.33, that due to accidents being given as 2.00, making the death rate due to natural causes only 10.35 per 1,000." He gives as reasons for this that there is a sort of natural selection at work, that those who find the work too hard drop out, and while the labor is arduous, it requires only steady, moderate exertion, the hygienic conditions in the (English) mines are generally good, the ventilation fair, the temperature equable, the miner is not exposed to the inclemencies of the weather and the place where he works is usually dry. The English coal miner, if industrious, he says, can always earn a wage ample enough to keep him in fair comfort and to supply him with all the necessaries of life. The inhalation of coal dust is irritating to the lungs to some extent and the constrained position in kirving or cutting under has its disadvantages, but these do not seem, in his opinion, to seriously counterbalance the hygienic advantages that otherwise exist. The English coal miners are far better off as far as health is concerned than the English metal miners as shown by statistics. One important cause of needless lung disease among them, he thinks, is their universal custom of walking home in their damp and dirty pit clothing instead of changing at the mine. Where conveniences for changing and bathing have been provided they have been always rejected.

We have not the corresponding authoritative figures and statements for the American coal miners, but we have the mortality statistics as given in the U. S. Census Reports (Vol. III, part 1, p. 154). Here we find that miners and quarrymen included together had a total mortality in 1900 of 5,895. Taking the four chief fatal disorders or classes of diseases we find the figures distinctly favorable to the miners. Thus they lost by consumption less than one-tenth of their total mortality as against over one-ninth among farmers and agricultural workers and over one-eighth among professional men, merchants, common laborers, and between one-sixth and one-seventh in manufacturing employes. Their proportion of deaths from pneumonia was about the same as that of agriculturalists and common laborers, and rather greater than that among most other classes of workers, while that from heart diseases and disorders of the nervous system was among the lowest in all occupations. Only in accidental deaths does mining industry have a specially bad preëminence, and here it is exceeded by the railway service, the percentages being 34 and 39 respectively of the total mortality. The small mortality from heart disease would not indicate any special prevalence of acute rheumatic affections, at least, during active life.

In Newsholme's "Vital Statistics," a standard British authority (1899), coal miners in Derby and Nottinghamshire stand high in the list as to expectation of life, being only surpassed by farmers, agricultural laborers, teachers, etc., but in Lancashire take a considerably lower place, a little below physicians and tailors and just above law clerks, butchers and printers. This would indicate a considerable difference in the conditions in the two localities, but in neither case is coal mining included among the most unhealthy trades. As regards special disease mortality the coal miners lead in bronchitis, of which, however, the aggregate mortality is small, while their loss from phthisis, the most fatal disease, is comparatively slight. A separate table is given of the ratio of mortality in occupations involving the breathing of dust-laden air, and in this coal mining and corn milling are bracketed together among the healthier occupations. Textile manufacturing, quarrying, iron and steel working are apparently much

1. "Dangerous Trades," recently published, edited by Thomas Oliver, M.D., the most recent standard work on the subject.

more dangerous from this cause, while cutlers and potters are at the worst end of the list.

The accidents of mining are, of course, a serious risk, but it appears from Louis' showing that they are largely avoidable. This is shown by the much lesser proportion in some countries than in others where the legal and other oversight is less strict and by their greatly lessened frequency with enforcement of precautionary regulations. In Great Britain they are apparently much less frequent than in the United States and are less common than formerly, while they are still rarer in Germany. There will always be, among any large number of working men, some reckless ones, and such can easily run up the accident list unless weeded out by the employers or by the general action of the others or constrained by rigidly enforced regulations.

It would seem probable, the miners' life being a laborious one, that it would cover only a certain number of the years of greatest vigor and that this would affect the statistics of mortality. To some extent this must be admitted, yet we find in the census mortality statistics nearly one-seventh of the deaths of miners are at 65 and over, and more than one-fourth over 55. As the mortality rate is not high, it would appear that while many continue at their occupation after middle life, a large number must go into other trades or retire altogether, like the bookkeepers, drummers, railway employes and clerks, who also show a proportionately small mortality at advanced ages. There are other employments that show a much greater mortality but still have a decidedly larger proportion at advanced ages.

It must be remembered that the mortality statistics of the U. S. Census include miners of all kinds, many of whom are engaged in much more unhealthy work than coal mining. They also include quarrymen, whose work, according to the English figures, is in some respects less healthful than that of the coal miner. It is unfortunate that we have not the data to exactly parallel these figures in this country and Europe, but it is quite possible that the results would not be materially affected. Taking it altogether the facts collected from all available sources seem to indicate, what we have hardly expected, that the occupation of coal mining is not either relatively or absolutely unhealthful as compared with the majority of other means of gaining a livelihood. It has its inconveniences and hardships and is exposed to special dangers from accidents, but these can be minimized by proper care, appliances and legal regulations. In Great Britain the mortality from coal mining from this cause is given by Newsholme as less than twice that in the general population. The special diseases to which miners are liable seem also to be largely preventable, thus greater care in changing the equable atmosphere of the mine to the extremes of heat and cold outside would probably reduce the proportion of respiratory affections, such as asthma, etc., that are now claimed to be incident to the occupation. These are the natural deductions from the data furnished by the authorities above quoted and which can not well be discredited.

AS TO ALCOHOL.

There are few problems of greater importance than the place that should be accorded alcohol as a beverage, a food and a therapeutic agent respectively. At the outset the question arises: Is the use of alcohol for any or all of these purposes on the one hand desirable, useful and free from danger, or, on the other hand, undesirable or unnecessary or even injurious; and the answer must be shaped from a knowledge of the physiologic actions of the substance in question. Now, so far as is known, alcohol belongs in the group of physiologic agents known as sedatives or narcotics, such apparent stimulation as it gives rise to being due rather to paralysis of inhibition. Alcohol is an irritant of tissue and, in sufficient amount and concentration, a protoplasmic poison.

As a beverage alcohol is unnecessary, as this purpose can be at least as well fulfilled by a number of other substances quite devoid of danger. The sense of well-being to which alcohol gives rise is due in part to loss of the sense of responsibility, and is therefore not to be lightly invited. Such value as a food or as a producer of energy or of heat as alcohol has is possessed by a large number of other substances incapable of harm, while the rapidity with which alcohol, when taken in moderate amounts, is consumed in the body is offset by the attendant interference with metabolism. As a therapeutic agent alcohol will find its indications when its physiologic effects are desired, and these can not be better induced, or with less danger, by any other means.

This entire subject has received generous and frequent discussion in recent years, and it would appear from the published communications bearing thereon that the view as to the inutility of alcohol for many of the objects for which it has long been employed is gaining increased acceptance. The November number of *The Practitioner* contains a symposium by distinguished English authorities on various aspects of the use of alcohol. The editor's own attitude appears to be one of tolerance or neutrality. In the opinion of Sir Samuel Wilks, who has himself used wine moderately as a beverage, alcohol is a good medicine and an important article of diet, but he holds that the circumstances and the limitations of its employment should be determined by the medical man. Sir Henry Thompson relates that early in life he personally secured relief from hemicrania and rheumatism by abstinence from alcohol. On attempting, at the age of 75, to resume the use of wine he found the effect to be unquestionably injurious. Sir Wm. Broadbent insists that alcoholics should be regarded as medicines and prescribed with the same care and in the same definite way as the most powerful remedies.

In discussing the pathology of alcoholism Dr. G. Sims Woodhead points out not only that the excessive use of alcohol induces cirrhotic changes in kidney and liver, but also that pneumonia, for instance, in alcoholic patients assumes a most virulent form and often ter-

minates fatally, marked fatty degeneration being found in various organs, and that a history of alcoholic indulgence is often an antecedent factor in the etiology of a number of diseases of the nervous system. The deleterious effects of alcohol are due to interference with nutrition and to gross degeneration of cytoplasm. These are most marked perhaps in the fibers of the heart muscle, but in advanced cases they appear also in the muscular coat of the blood vessels, in the liver cells and sometimes in the excretory cells of other organs. Fibrosis and calcification may result as secondary changes. Furthermore, it has been demonstrated that indulgence in alcohol predisposes to infection and that alcoholics attacked thereby resist its ravages less well than do abstainers. Dr. Woodhead always has been an abstainer, and he has found that as an athlete, as a student and as a worker he has been able to accomplish the tasks that have fallen to him with as little effort as his fellows, if not with less effort.

After pointing out the truly enormous annual expenditure for alcoholic beverages in the United Kingdom, together with the resulting pauperism, crime, destitution and disease and the losses in labor and due to accident, etc., Dr. Jas. Edmunds cites the experience of the United Kingdom Temperance and General Provident Institution, which for more than fifty years has insured abstainers and non-abstainers in separate departments. It has been found that the number of deaths expected, the number that actually occurred and the policy claims paid were all more than 25 per cent. greater in the case of non-abstainers than in that of abstainers. Furthermore, the statistics of the registrar-general for England and Wales show a much higher mortality among persons engaged in occupations that favor indulgence in alcohol. Testimony of an allied character is presented by Dr. J. J. Ridge and Mr. Francis Vacher. As to the part that alcohol plays in surgery Mr. Pearce Gould holds that it is altogether an injurious one. Mr. J. Milne Bramwell cites the results obtained in the treatment of 76 cases of dipsomania and chronic alcoholism by means of hypnotic suggestion. Recovery ensued in 28 cases, improvement in 36 and failure in 12.

As will be seen, the symposium in *The Practitioner* constitutes a strong document in favor of temperance, if not abstinence, with respect to the use of alcohol. Whatever the measure of doubt or uncertainty in which the question is involved that attitude would appear to be at least a safe one. It will not be contended that alcohol is necessary as a beverage or as a food, and it can therefore be dispensed with for such purposes. As to its therapeutic employment, there may be reasonable difference of opinion, and we may wait for further evidence on this point before reaching a final conclusion.

TUBERCULOUS CERVICAL ADENITIS.

The article by Dr. Freeman in the present number of THE JOURNAL appears especially timely, since various writers have recently advocated earlier and more radical operative measures in the treatment of tuberculosis of lymph glands. Tuberculous cervical adenitis is a disease which comes under the physician's care with relative frequency, being especially prevalent among city children with unhygienic surroundings. Swelling of the cervical lymph glands is common in children as a sequel to various inflammatory processes in the nose, pharynx, mouth, tonsils, ears and scalp. The swelling may immediately follow a single acute disorder, but it is frequently due to repeated slight inflammations and chronic catarrhs of the nasopharyngeal mucous membranes. Such enlarged glands tend to disappear as the child becomes older. If tubercle bacilli gain entrance to these enlarged glands, they find favorable conditions for multiplication, and tuberculous adenitis is often implanted on a previous benign swelling. It is most likely that the tubercle bacilli usually enter the glands through the lymphatics which pass from the inflamed mucous membranes above mentioned, and since typical tuberculous ulcerations are rarely found at these points it has been assumed that the bacilli pass through the mucous membrane or through trivial wounds without causing any tuberculosis at the place of entrance. The disease usually progresses so slowly and terminates in spontaneous recovery in so many cases that it is often difficult to know what is best to be done in regard to treatment. In every case the patient should be given the advantage of the best hygienic surroundings. Tonics, cod liver oil, creosote, etc., should be administered for their general effects. Any local disease in the nose, throat, etc., should receive appropriate treatment. The application of iodin and other irritants to the skin overlying the glands is to be condemned; no good results follow such measures and they seem to do harm by encouraging inflammations about the glands. Injections of various antiseptic substances have also been found to exert no favorable influence, and they sometimes appear to render subsequent removal more difficult. If the glandular changes are limited, the enlargement being comparatively moderate and showing no tendency to break down, the general advice is to watch the progress of the disease in the glands, and to make every effort to improve the general condition of the patient. If the disease shows a tendency to progress, especially if the enlargement has attained considerable size and persisted for some time, operative measures must be instituted.

The surgical treatment of tuberculous cervical adenitis has been gradually elaborated during the past twenty years. In 1893 the subject was discussed at the meeting of the British Medical Association, and Allbutt, Teale and others urged more general operative treatment in this class of cases. Teale declared "the ugly scars and unseemly depressions, once so familiar in scrofulous necks, should be deemed an opprobrium of surgery; whilst to delay operation until the skin is

thin, red and ready to break down, or has already given way, should be looked on as mischievous trifling." The operative treatment advocated at that time consisted largely in incising and scraping caseating glands, and many were inclined to adhere to conservative measures as long as possible, leaving surgical interference as a last resort. In 1899 W. Watson Cheyne,[1] in the Harveian Lectures, strongly advocated complete removal, not only of the very large and caseating glands, but also of all adjacent glands which are not perceptibly enlarged, together with the surrounding fat, and all tissue involved by extension. Whenever the tuberculous mass could not be satisfactorily separated from the internal jugular vein, he advised the removal of a portion of the vein between two ligatures. This latter procedure he found necessary in all cases in which there were sinuses, and practically all cases in which suppuration was present. The highly satisfactory results of such radical operative treatment of tuberculous adenitis in the hands of the leading surgeons have lead to a more general adoption of similar measures. The recent publications by Parker[2] and Mitchell[3] indicate that experience with extensive material impresses the observer with the value of thorough operative removal of all infected tissues in these cases. Parker urges more frequent and thorough operation in the milder cases, thus reducing the number of advanced and extensive cases calling for treatment.

While tuberculous cervical adenitis is primarily a local disease, and not extremely serious nor rarely proving fatal in itself, it bears a certain definite relation to pulmonary tuberculosis, and tuberculous glands are a constant danger, being a source from which tuberculosis may spread. Permanent recovery follows proper removal in over 70 per cent. of cases, and tuberculosis of the lungs, after complete removal of the glands, is comparatively rare. There is no doubt that operative treatment in these cases should be instituted early, at a time when removal can be effected with comparative ease, and that the excision should be radical in all cases.

1. Brit. Med. Jour., Dec. 16, 1899, 1659.
2. Brit. Med. Jour., Oct. 25, 1902, 1312.
3. Johns Hopkins Hospital Bulletin, July, 1902, 161.

THE STUDY OF PALSIES.

A review of the large and increasing statistics of infantile palsies applying for treatment in the metropolitan clinics of children's and nervous diseases shows plainly that the cause and prophylaxis of these disorders are in need of more minute study. The morbid anatomy and the manner of production of the spinal type is fortunately well known from the more recent work of Semerling, Goldscheider, Medin, Strümpel and Zupper, but its minute pathology and pathogenesis are still in doubt.

A question still under discussion is, are they primarily parenchymatous or vascular in their inception? The general trend of modern research is in favor of the latter theory, while the secondary changes are considered to be interstitial and parenchymatous. Opinions appear about equally divided between the theories of the autotoxic and organismal cause of the primary lesion, but the force of its epidemic occurrence is in favor of the latter.

While preventive medicine seems on the eve of triumph in the spinal type of palsy, it is far distant in the cerebral form. Here the problem is a disheartening one. Spinal architecture and function is now well known, but that of the brain is in its infancy. The nature of the earliest changes in cerebral palsy is especially obscure, notwithstanding its terminal pathology is quite clear. The thrombophlebitic, interstitial and hemorrhagic changes are all secondary to an infectious element. Muratow,[1] in his recent work, strongly contends for the non-suppurative parenchymatous character of the lesion. The author particularly insists on the para-infectious nature of the disease process. From clinico-pathologic data he believes it is shown to be due to a toxin, not to an infectious organism itself. Coincident to this work we find the encephalopathy type of lesion is still urged by Strümpel, and that this belief is current in German medicine, and furthermore, Strümpel's assistants have but recently found new facts to substantiate the original contentions of their chief.

Detail studies in the cerebral palsies, especially on athetosis and allied disorders of motility which follow in the wake of the original lesion, appear from time to time and are of considerable interest. For a number of years it has been known that rare cases of paradoxical pseudo-hypertrophy may occur in cerebral palsy, but this has rested on the rather slender argument that the choreic paresis present causes the hypertrophy by agitation of the partly paralyzed parts. The recent review of the matter with report of five new cases made by Clark[2] has also shown that epilepsy may accompany or replace athetosis, but this hardly explains the hypertrophic state of soft and bony parts of the trunk, not in agitation either in athetosis or epilepsy, as recorded by the older French writers.

It has been conclusively proven by Batten that the muscle spindle has no other than sensory functions, and that it suffers no material alteration in brain or spinal palsies in children. We must, therefore, look to the nature of the cerebral lesions for an explanation of all the phenomena attending these paralytic disorders. The importance of being able to diagnose the seat, nature and degree of brain damage is rightly emphasized by Clark. But before we shall be able to do this to any degree of satisfaction a more exact anatomy and physiology of the brain, and especially of the cerebral cortex, must point the way.

1. Monatschrift für Psychiatrie und Neurologie, May, 1902.
2. Journal of Nervous and Mental Diseases, November, 1902.

CALIFORNIA STATE JOURNAL OF MEDICINE.

Volume I, No. 1, of the *California State Journal of Medicine* is just received. It is the journal of the Medical Society of California, and will be issued monthly in

place of the annual transactions. In the editorial announcement we read:

"The Journal will be the partisan of no one and nothing, save only and always an energetic partisan for honest, legitimate, ethical practice of the regular profession, for truth and right, and, first, last and all the time, for organization, and again organization, of the regular profession of California into a united body—the State Society."

The first number is a credit both to the editorial committee and to the Medical Society of the State of California.

RECOMMENDATIONS FOR THE NAVY.

The report of the Surgeon General of the Navy contains, besides the usual matter, one or two propositions worthy of special note. One is the recommendation of the provision for a corps of female nurses to act in the large naval hospitals. Army experience has shown the advantages of such a corps, and there ought also be occasion for their services on hospital ships. It would also relieve the hospital apprentices now employed, for sea service, as the Surgeon General suggests. The military female nurse appears to be a permanent institution in the Army, and there is no good reason why her services should not be secured to the naval branch of the service. Another suggestion, though without formal plans, recommended is that of a naval tuberculosis sanitarium, thus also profiting from the Army experience. The bureau has the subject under consideration and hopes to be able to offer definite plans in the near future. The need of increase of the medical corps of the Navy is emphasized, as the work has increased and the present law does not provide for a sufficient number of medical officers. There are no vacancies and the corps is undermanned and overworked. It is a proper subject for the consideration of Congress, as with our naval increase there should also be a corresponding increase of the medical corps or the whole body will suffer. Naval line officers do not always appreciate their own needs in this respect, but it is to be hoped that their influence will also be exerted for the Surgeon General's recommendations. Our new Navy should be a model one in its medical as well as in all other departments.

THE MECCA PILGRIMAGE.

It is an evidence of the advance of modern medicine and the benefits that it has conferred on mankind that the epidemics that were so fatal even a few decades since are now little to be feared by civilized communities. Thus cholera, which raged in the United States and Europe even later than the middle of the nineteenth century and only eleven years ago in the city of Hamburg, now gives little concern to sanitarians, as we know how to avoid it, even in the centers of its prevalence. There are good reasons, nevertheless, why we should not neglect precautions; there are many, even in the most highly civilized communities, who from their habits and prejudices can furnish food for epidemics of even the most preventable diseases. It is therefore not a matter of indifference to us, aside from all general humanitarian considerations, that cholera rages in Egypt or Eastern Asia, and anything that can be done to prevent its continuance should not be neglected. It is to be presumed that in the Philippines, India, China and Japan all that can be done with the material of their populations is being done, but in the nearer East the case may be different. The Mecca pilgrimage has always been the disease breeder and disseminator *par excellence*, but fear of stirring up religious fanaticisms has heretofore kept Europeans from interfering with it except in a very partial and inefficient way. Now that we know better how to control the disorders that have heretofore been formidable as epidemics, the question arises whether it is not an urgent duty of the powers that have most to do with this, as rulers of adjacent territories or of those that furnish the pilgrims, to take up the matter and either enforce needed sanitation or, if necessary, even stop the pilgrimage. The latter step would, of course, be only one of last resort, but its possibility should be considered. It is useless to expect any Moslem powers to take the matter up, and their promises are worth nothing. In the meantime cholera is devastating Egypt and other Mohammedan countries and the dangers of its extension are always present. Though most civilized countries will escape, the present state of affairs is the cause of hundreds of thousands of needless deaths and an interference with commerce and the world's progress. The Mecca pilgrimage, as conducted, is an ever-present annual peril to the welfare of the world.

THE FOOTBALL MORTALITY.

The football season is now over and leaves behind it a very respectable record of casualties, enough to supply a respectable Spanish-American war, and only second to the Fourth of July mortality. Thus far the returns give 12 deaths, several fatally injured and over eighty seriously injured, smaller items, such as sprains, bruises, torn ears, loss of teeth, etc., not enumerated. The query whether the game is worth all this naturally suggests itself. There is something in most of us that makes danger a sort of relish to our pastimes, and it is perhaps to this barbaric element in our natures that some of the world's progress is due. Professionally, however, we can not approve of anything so unsanitary even in a purely traumatic way, and it would seem that something might be done by those in charge of college athletics at least, to modify the roughness of the game and somewhat reduce its risks. Among the serious casualties of the game this year we have fractured skulls, injured spines, brain injuries resulting in insanity, as well as broken legs, ribs, collar-bones, etc. To be a cripple or lunatic for life is paying high for athletic emulation. Besides this, there is another side of the question, a moral one that deserves consideration. There is what one may call "dirty football." We hear of slugging players, of those that directly aim to injure players or aggravate existing injuries so as to disable them, and the umpires do not seem to consider this a sufficiently serious matter. The reports of casualties give plenty of evidence of this; we have the records, "kicked in the head," "stabbed in the back," among the other injuries reported, showing that the game is made absolutely murderous at times. It is hard to speak mildly of such outrages, but if the rules were made and en-

forced that any "dirty work" lost the game to the side indulging in it or even severely penalized it, much good would be done. At present it almost appears that football authorities condone this sort of thing, and certainly they do little to show that they are not willing to profit by it. There is little difference in this from criminal manslaughter or murder if death should result, and all who do not actively discourage it are more or less responsible. It may be that we must have more or less unavoidable risk in football, for it is a rough game, but brutality is utterly needless and deserves the severest condemnation and condign punishment. There is no use of making a rough game a murderous one.

Medical News.

CONNECTICUT.

Personal.—Dr. Walter L. Lay, Norwich, will practice in Middletown; his successor at the Backus Hospital as senior house physician is Dr. F. A. Emmett, and the vacancy caused by the latter's promotion has been filled by Dr. David Getchell, Oldtown, Me.

Physician Fined and Appeals.—Dr. Anthony J. Hill, Torrington, charged with having practiced medicine without registering or taking the examinations requested by the state law of 1897, was found guilty, November 19, and fined $100 and costs. He took an appeal to the Superior Court. Dr. Hill has long been a resident of Torrington, but some time ago gave up his practice to a considerable extent. About a year ago he commenced active work again.

Smallpox.—From the report of the Connecticut State Board of Health, we quote the following:

One of the most notable facts relating to the health of the state during the past year, was the widespread prevalence of smallpox. Cases were reported from 34 different towns, including every county in the state.

In only a few places did it assume the character of an epidemic, although regarded as the most contagious of all diseases.

In two ways these outbreaks gave testimony to the protective power of vaccination: 1. Connecticut, one of the most densely populated states and in intimate relation with the rest of the country, was slow to entertain any cases of the disease. This exemption can be explained only because so large a proportion of the inhabitants have been rendered immune by vaccination.

2. The spread of the disease has been almost wholly among those who were never vaccinated, or who were vaccinated so long ago, that its protective power had been impaired by time. In still another way its value has been verified, by the prompt arrest of the spread of the disease wherever a general vaccination has been practiced.

There were 323 cases reported during the year ended October 1, of which only 22 were fatal, giving the surprisingly low death-rate of 6.8 per cent. In all the literature there is no record of an epidemic of so mild a type.

In the three largest cities in the state, where general vaccination is observed, there were only 16 cases.

ILLINOIS.

Jo Daviess County Loses Suit.—In the case of Dr. George A Staples et al. vs. the County of Jo Daviess, for services rendered a poor patient of East Dubuque, the jury found for the plaintiffs and awarded $500 for services rendered. The original bill was for $300 but this the county board of supervisors refused to pay, and offered to settle for $150.

Suicides.—Native Illinoisians do not often commit suicide. Out of 35 who killed themselves in Chicago, 19 were foreigners and 12 were natives of other states. Cook County has the greatest number; St. Clair County, which has a certain proportion of the St. Louis suicides, ranks second; Sangamon County, third; Peoria County, fourth, and Vermilion County, fifth.

Chicago.

Funds for Hospitals.—The will of the late Matheus Gottfried bequeaths $2000 to the Christian Brothers' Hospital; $3500 to Mercy Hospital, and $2000 to the German Hospital.

Need of Children's Hospital for Contagious Diseases.—In its latest bulletin the department of health calls attention to the need of a hospital for children ill with contagious diseases, and cites a distressing case in confirmation.

X-Ray Suit.—Suit has been begun by John Bortoli against Northwestern University and Lakeside Hospital for injuries alleged to have been received during the course of treatment at these institutions with the *x*-ray; $12,000 damages is claimed.

Convalescent Home Opened.—A home for convalescent women was opened at 521 West Adams Street, November 22. It will accommodate thirty, and is designed to provide a home for women discharged from hospitals before they are fit to take up their work again.

Suit for Consumption Treatment.—A suit has been entered in the Circuit Court by Frank B. Pease, executor of the estate of the late August Dahlin, against Drs. John B. Murphy and August F. Lemke, for $25,000 damages. The main allegation of the plaintiff is that a treatment described as the nitrogen monoxid gas method, which it is claimed was invented by Dr. Murphy and applied to Dahlin by Dr. Lemke, materially shortened the life of Dahlin.

Deaths of the Week.—During the week ended November 29, 448 deaths were reported, corresponding to an annual death rate of 12.83. There were 12 fewer deaths from all causes reported during the week than during the week before, and 25 fewer than in the corresponding week of 1901. The significance of this decrease is in the number of deaths (ten) under 1 year of age, and in that (fourteen) under 5 years of age. It is an axiom among sanitary authorities that the death rate under 5 is the best test of the sanitary condition or of the sanitary administration of a locality. Only the increased number of deaths from violence, including suicide, prevents the death rate of this month from being the lowest November mortality rate on record. There were 37 violent deaths reported during the week, as against 25 during the corresponding week of last year. Pneumonia caused 50 deaths; consumption, 40; cancer, 27; diphtheria, 21, and typhoid fever, 19.

False Death Certificates Spread Contagion.—The Department of Health comments as follows on a practice which is alleged to be growing, of the issuance by certain physicians of false death certificates in case of death from contagious diseases:

Another and more culpable, even criminal, cause of the spread of contagion is being investigated by the health department, with a view of presenting the evidence to the medical organizations of the city and to the State Board of Health, which latter body is charged with the enforcement of the medical practice act. This cause is the growing practice among certain physicians of the baser sort of giving certificates of death from contagious disease, in which certificates some non-contagious disease is falsely assigned as the cause. This is done usually at the request of the family, who wish to evade the restrictions of the health department in contagious disease funerals.

The Registrar of Vital Statistics reports to the commissioner that "We have had numerous complaints from undertakers that certain physicians were practicing this deception to a considerable extent, but up to date we have been able to verify only these two cases. We have pressed our preventive work so far as we can with undertakers without having the co-operation of the attending physician. We can control an undertaker, but not a physician. The situation is particularly grave at this time, inasmuch as diphtheria is endemic in this locality—the district south of the C. B. & Q. R. R. tracks and west of Center avenue to California avenue. The cases of diphtheria reported from this immediate neighborhood began in June with 1; then no other case until August, when there was 1 more; in September 3, in October 15 and in November 22, making a total of 42 cases—over half the total number occurring within the last month. There is no telling how many cases have been concealed, nor how many funerals of contagious disease deaths have been conducted without the supervision of the department for the enforcement of preventive measures against the spread of contagion; but it is evident from this rapid increase of diphtheria—out of all proportion to the increase in other portions of the city—that there is need of greater authority over a certain class of certifying physicians than the department now possesses."

INDIANA.

To Add to College.—The Medical College of Indiana, Indianapolis, has purchased 50 feet of additional frontage on which it will erect an addition to the present college building.

Hammond Board of Health Organized.—The Hammond Board of Health has been organized with Dr. Preston G. Ibach, president; Dr. Cyrus W. Campbell, secretary, and Dr. Thomas W. Kohr, inspector.

Physicians in Indiana.—According to the annual report just published by the State Board of Medical Examination and Registration, there are 5880 physicians in Indiana, of whom 685 are in Marion County.

Indictments for Body Snatching.—The grand jury for the July term of the Marion County Criminal Court has returned indictments against six of those alleged to have been concerned in removing corpses unlawfully, selling them to various medical colleges, and aiding and abetting in the concealment of the corpses.

Charges Against Physicians.—Charles Soultz has entered suit against Dr. Aldine J. Dooley, Marion, for $5000, alleging

that by the defendant's negligence and lack of skill, the plaintiff received permanent injury to his sight.——Dr. Donald M. Kelley, Brookston, has been sued for $10,000 damages by Bertha Garrett, who alleges that the defendant attended her for dislocation of the shoulder, and that by his unskilful treatment she was rendered a cripple.

KANSAS.

Personal.—Dr. John D. Freeman has returned to Topeka after six months of study in Europe.

Patient Wins Damage Suit.—In the suit brought by Mrs. Mary Collins for $3000 damages for alleged malpractice in the setting of a broken arm and shoulder, against Dr. W. H. Mauser, Burden, the jury found for the plaintiff and assessed the damages at $650.

KENTUCKY.

Louisville.

Health Commissioner's Annual Report.—In his annual report Dr. Maverell K. Allen calls attention to the low death rate of 16.32 per 1000. Among the reforms suggested are additional public bath houses, more sewers, another garbage crematory, and the free distribution of antitoxin. Great stress is laid on the necessity for regular medical inspection of the public schools where the conditions are favorable to the spread of contagious diseases.

St. Joseph's Infirmary.—The golden jubilee of this institution was celebrated November 29. This institution grew out of the old orphans' asylum, established in 1837, on Jefferson Street, and moved to its present location in 1852. Some of the sisters on duty have been at the infirmary for twenty years. The first patient was received Dec. 2, 1852. Among those who have attended patients at the institution have been Drs. Samuel Gross, Erasmus Foree, Henry Miller, Austin Flint, Lewis Rogers, T. S. Bull, and David W. Yandell.

War on Milk from Distillery Fed Cows.—The health officer has begun war on the dairymen who feed distillery slop in violation of the city ordinance prohibiting its use. Three dairymen have been indicted in the city court and the Dairymen's Protective Association has issued a card claiming that "milk yielded by cows fed on distillery slop is of healthful quality, rich in butter fats; in fact, as good or better milk than is produced by cows fed exclusively on dry feed." They claim that the tests of the health department prove this fact, that they feed slop with other feed and submit it to a heat of 160 degrees before it is fed, and that there is no alcohol in the material. The health department is seriously considering the advisability of publishing the names of the dairymen licensed to vend milk in the city and what material is used by them for feed.

MARYLAND.

New Hospital at Cambridge.—Plans for the United Charities Hospital at Cambridge provide for a building with 40 rooms, at an expense not over $30,000. It is proposed to build on the East Cambridge site.

Approve State Care of Indigent Insane.—At the semi-annual meeting of the Medical and Chirurgical Faculty of Maryland, held at Laurel, November 18, the faculty gave its approval to the state care of the indigent insane, and a motion was adopted that a committee be appointed to take the matter under consideration, and report a plan at the annual meeting for approval and submission to the legislature.

Personal.—Dr. John Ridout has been elected physician to the Charities Association of Annapolis.——Dr. James H. Jarrett celebrated his golden wedding at Towson, November 16.——Dr. Samuel Chase DeKrafft, major and surgeon, U. S. V., who has been serving with the Army in the Philippines for several years past, has been honorably discharged from the service and will return to his former home in Cambridge, Dorchester County.

Baltimore.

Will Entertain Lorenz.—Dr. Adolf Lorenz is expected here this week, and arrangements are being made to give him a warm reception. He will be the guest of the Johns Hopkins Hospital.

Accident to Professor Abel.—Dr. John J. Abel met with an accident at the physiologic laboratory of the Johns Hopkins Medical School, November 21. A bottle of amyl-nitrite exploded, cutting one of the tendons of his right hand and making him very ill from the fumes.

Prospects of the University.—Dr. Eugene F. Cordell addressed the senior class of the University of Maryland, November 22, on the "Past History, Present Needs and Future Prospects of the University." A strong movement is being made by the alumni and friends of the university to reorganize it on a better basis, and to push forward the endowment scheme. Extraordinary efforts will be inaugurated in the near future to raise a large endowment for the centennial which will occur in 1907.

Personal.—Surgeon H. R. Carter, U. S. P. H. and M.-H. Service, Baltimore, has been detailed as representative to the sanitary conference at Cairo, Egypt.——Dr. Ira Remsen of Johns Hopkins University was elected president of the Association of Colleges and Preparatory Schools of the Middle States and Maryland, which met in Baltimore November 16.——Dr. Jennie N. Browne has been appointed assistant medical agent for the South Baltimore District for the treatment of women and children.

Alleged Wrongful Registration.—On complaint of Dr. Eugene McE. Van Ness orders were signed, November 21, requiring Drs. Herbert Richardson, J. Thomas Nelson, William Caspari, Jr., Arthur W. Smith and John Thomas Avery to show cause by December 6 why their names should not be stricken from the register of physicians and surgeons duly qualified to practice medicine in Maryland, kept in the office of the clerk of the Superior Court. It is alleged that the physicians named were wrongfully registered without first having obtained a license from one of the boards of state medical examiners.

Institution for Feeble-Minded.—Plans have been completed for the administration building of the Maryland Asylum and Training School for the Feeble-Minded near Owings' Mills, Baltimore County, and construction has already begun. It is to be the central figure of a group of which two, a cottage accommodating 75 children, and a school building, have already been built, and will have a frontage of 100 feet with wing extensions from each end to the rear, 63 feet deep. It will have accommodations for the superintendent and his family, executive offices and sleeping rooms for teachers and assistants. At the rear, and connected with the various buildings, with inclosed corridors, will be a kitchen and refectory building. The buildings are being constructed of white limestone, and will cost $50,000.

MICHIGAN.

Typhoid at Prison.—There is said to be an epidemic of typhoid fever at the state prison in Jackson, where 22 cases have occurred.

Tried for Sending Obscene Letters.—"Dr." J. R. Krauth, Cadillac, plead guilty to the charge of sending obscene letters through the United States mail and was sentenced to pay a fine of $200, or in default to go to jail for 90 days. He paid the fine.

Personal.—Dr. George R. Pray, Ann Arbor, has been appointed physician to the state prison at Jackson, vice Dr. William A. Gibson, resigned.——Dr. G. Parker Dillon, formerly of Grand Rapids, acting assistant surgeon, U. S. Army, has been seriously ill with Malta fever, and has returned to the United States.

Michigan Mortality.—There were 2360 deaths reported during October, a decrease of 188 deaths from the preceding month. The death rate was 11.4 per 1000 population per annum, as compared with 12.6 for September. There were 470 deaths of infants under 1 year; 181 deaths of children aged 1 to 4, and 607 deaths of individuals more than 65. Important causes of death were as follows: Tuberculosis, 162; typhoid fever, 84; diphtheria, 73; scarlet fever, 19; whooping cough, 13; pneumonia, 149; diarrhea and enteritis, under two years, 130; cancer, 104; accidents and violence, 188. A decrease was shown in the mortality from tuberculosis, whooping cough and diarrheal diseases from the preceding month, and an increase in the deaths from diphtheria and pneumonia. Two deaths from smallpox were reported.

MISSOURI.

State Tuberculosis Sanatorium.—The St. Joseph Medical Society, at its meeting, November 12, unanimously adopted resolutions favoring the establishment of a state tuberculosis sanatorium.

Personal.—Dr. Joseph F. Robinson, Nevada, has been elected non-resident lecturer in the medical department of the State University.——Dr. Louis C. Fuller, Kansas City, is seriously ill as the result of a cerebral hemorrhage.——Dr. Edward B. Clements, Macon, has been elected to the state legislature.

Condemn Coagulant Clarifiants.—The committee of the St. Louis Medical Society appointed to investigate the water problem of St. Louis, in its report unhesitatingly condemns the use of alum or any other coagulant to clarify the city's water supply. Resolutions were adopted which condemned any attempt to purify the water supply by chemical means, and urged that the water be procured from sources that are naturally pure.

NEW JERSEY.

Personal.—Dr. Frank C. Katherman, Atlantic City, has been appointed surgeon for the Pennsylvania system at Altoona, Pa.——Dr. Frank Devlin, Newark, has been appointed visiting surgeon to St. James' Hospital.

Typhoid in Trenton.—An epidemic of typhoid fever in Trenton is feared. The health officials are said thus far to have found no specific source of infection. Many cases are in hospital and many more suspected individuals are under observation.

Osteopath Fined.—E. M. Herring, Asbury Park, an osteopath, has been fined by Judge Heisley of the Monmouth County Court $100 and costs, for unlawful practice of medicine. The judge held that the application of hands in the treatment of a disease was a remedy in the same sense as the application of drugs. This is the first case of the kind in the state. The medical law has been sustained by the Court of Errors and Appeals in all cases heretofore tried for unlawful practice.

William Pierson Memorial Banquet.—The William Pierson Medical Library Association at Orange celebrated by a banquet, November 12, the conclusion of its highly successful first year. Profs. A. Jacobi, M. Allen Starr and Dr. J. H. Huddleston were present and delivered addresses. The Hon. Frederic Adams delivered a eulogy on Dr. Pierson. The association now has about 80 members, has a library of 1500 volumes, and a fund of more than $5000 donated by Dr. Pierson's widow, the income from which will be devoted to keeping up the supply of books for the library. Steps have been taken to increase this fund and also to establish a fund from which the expenses of medical lectures to be given by the best medical and scientific men before the association shall be met.

NEW YORK.

Opposition to Coroners.—The movement against the mediæval office of coroner has received a new impulse by the appointment of a committee from the New York County Medical Society to investigate and report on the advisability of reorganizing or abolishing the coroner's office. This committee consists of Drs. William M. Polk, J. Winters Brannan and Frank Van Fleet.

Increased Appropriation for Insane.—It is expected that the State Commission in Lunacy will request the next legislature to increase its appropriation for next year by at least $500,000. The total appropriation for the care of the insane in 1902 was $4,165,886.66, which was $340,000 less than the appropriation for 1901. The commission, however, had on hand a large balance and this was utilized last year. This year there is no balance, so an increased appropriation is necessary.

Negroes and Cocain.—William H. Johnson of the Bureau of Labor and Charities has called on the citizens of Syracuse to alleviate the condition of a large percentage of Syracuse negroes. He states that every crime committed in that city in the past two years has been committed by a cocain fiend. He charges this increase to the looseness of druggists who sell the drug openly. Many normal school graduates among the negroes have become addicted to the drug, and there are many who have had to leave school.

Defense of the Accused Eddyites.—In the recent argument on the demurrer to the indictments at White Plains, so many new and interesting legal points were raised by the Eddyites that Judge Platt requested the lawyers to submit briefs. The chief contentions of the defense are: That under the constitution the members of the Eddyite Church have a right to liberty of thought and the use of their faculties; that there is no law which compels medical attendance, and that there is no law compelling a parent to give his or her child drugs.

New York City.

Thousands Offered for Hospital.—Four persons have each promised to the New York Post-Graduate Hospital $25,000 if the hospital association of the institution shall succeed in raising $100,000.

Regarding the Late Dr. A. M. Phelps.—At a meeting of a committee of the City Hospital Medical Board, November 22, resolutions were passed expressing regret at the untimely death of the late Dr. A. M. Phelps, who was for more than thirteen years visiting surgeon to the institution.

Personal.—Dr. Ogden C. Ludlow has been appointed visiting physician to St. Joseph's Hospital.——Dr. Gertrude N. Light has been appointed a sanitary inspector.——Dr. Clinton H. Catherwood, who has been absent in the West for some time because of ill-health, has resumed practice.

Home for Nurses.—As a result of plans prepared by friends of the New York Hospital, the graduate nurses of this institution are to have a clubhouse and home. The building, including the purchase of a tract of land centrally situated, will cost $300,000. The building will accommodate 130 nurses.

New Hospitals Opened.—St. Bartholomew's Clinic, under the charge of Dr. Sinclair Tousey, has moved into its new building erected by the munificence of Mrs. Joseph C. Hoagland of Brooklyn, who not only bought the site and erected the building at a cost of $300,000, but also agrees to assume the expenses of its maintenance.——The new Bradford Street Reception Hospital, where all East New York emergency cases will be treated, was opened November 24.

Fined for Infractions of Law.—Dr. Agnes Karlstoe was convicted, November 26, of practicing medicine without a license, and fined $150. She paid the fine and promised to leave the country. On the same day Dr. Luigi de Ambrosio was convicted of the same offense and fined $250. Dr. John Le Pinto was tried on the charges of failing to report a case of contagious disease and of issuing a false death certificate, found guilty of both offenses as charged, and fined $250.

Buffalo.

General Vaccination Urged.—Dr. W. D. Green, the health commissioner, has advised general vaccination in those not successfully vaccinated within four years. Smallpox is prevalent in Rochester, Cleveland and Detroit, and because of the interchange of traffic and lack of quarantine between these places it is but a question of time before another visitation of smallpox may be expected in Buffalo. The facilities for caring for such cases in this city are a disgrace to any civilized community, and the Board of Councilmen are menacing the health of the city by their delay in the selection of a proper site for the new quarantine hospital, for which a $50,000 bonded indebtedness has been authorized.

OHIO.

Long in Practice.—Dr. Charles L. W. Wilgohs, Akron, the oldest practitioner in the state, celebrated his ninety-ninth birthday anniversary November 20. He was in active practice until a year ago.

New Akron Hospital.—The cornerstone of the new Akron City Hospital was laid with appropriate ceremonies, November 23. The building, which will cost about $60,000, will stand as a monument to the generosity of Messrs. O. C. Barber and George T. Perkins. At the annual meeting of the staff, November 18, Dr. William C. Jacobs was elected president, Dr. Louis S. Sweitzer, vice-president, and Dr. Harry D. Todd, secretary.

Alleged Malpractice.—In the case of Mary H. Kimple against Dr. Moses D. Rabenoyich, Toledo, a verdict was returned for the defendant, November 26.——Dr. James A. Duncan, Toledo, is the defendant in a suit brought by George E. Howe, for $10,000, for alleged improper treatment of a fractured leg.——Oscar Shanks has sued Dr. Alexander Smith, Pottersburg, for alleged failure to properly set a broken leg, and considers that he has been damaged to the extent of $5550.——In the case of Matilda Tucker against Dr. William J. Gillette, Toledo, charged with having left a sponge in the abdominal cavity after an operation for appendicitis, the jury found for the plaintiff.

Cincinnati.

Poison Ward.—Two rooms at the City Hospital are to be fitted up especially for the treatment of acute poisoning cases.

Medical Library To Be Open Evenings.—At the regular monthly meeting of the trustees of the Cincinnati Hospital, it was decided that for the accommodation of the physicians of the city, the library will be kept open Tuesday, Wednesday, Thursday and Friday evenings. This is a concession that has long been earnestly sought by local physicians as the hospital boasts of the best medical library in the city.

New Post-Graduate School.—It was recently decided to establish a new clinic and post-graduate school, to be called the Cincinnati Polyclinic. A site is to be purchased on Seventh Street, between Main and Sycamore. The following staff of

officers was elected: President, Dr. Louis J. Krouse; vice-presidents, Drs. Adolph Morganstern and Edwin S. Ricketts; secretary, Dr. Oscar W. Stark; treasurer, Dr. William C. Harris, and director of clinics, Dr. Travis Carroll.

The Bureau of Infectious and Contagious Diseases of the Cincinnati Health Department makes the following report for the week ended November 14: Total number of cases 78, with 16 deaths; typhoid fever seems to be somewhat on the decrease, only 12 cases having been reported during the week; diphtheria and scarlet fever are on the increase, 15 and 20 cases respectively having been reported; smallpox still continues with 3 cases for the week; other diseases scattering.

PENNSYLVANIA.

St. John's Hospital.—Allegheny recently received a new addition comprising 4 wards and 29 private rooms. The cost was about $33,000.

Banquet at Pittsburg.—Dr. John B. Deaver was the guest of honor and made the principal address at the eleventh annual banquet of the Western Pennsylvania Medical Society, Pittsburg, November 25.

Hospital Endowment Fund.—Bryn Mawr Hospital has received from the estate of Mrs. Esther F. Wistar, Philadelphia, $12,505.88 in cash and property valued at $76,000, which is to constitute the Dr. Mifflin Wistar Memorial Fund.

Bequest to Allentown Hospital.—By the will of John E. Leutz, Allentown, a bequest of $1000 is made to the endowment fund of the Allentown Hospital. Should the children of deceased die without heirs one-third of his estate is to go to the same institution.

Personal.—Drs. Walter E. Miller and Paris Shoaff, New Castle, were seriously injured in a runaway accident, November 21.——Dr. J. Ellis Glasgow, Cresson, has been made senior resident physician of Mercy Hospital, Pittsburg. He is succeeded by Dr. J. Stein of Philadelphia.

In Memory of Dr. Davis.—At its meeting, November 18, in Oil City, the Venango County Medical Society adopted resolutions of regret for the death of its late member, Dr. Francis F. Davis, and many of his associates paid personal tributes to his qualities as a man and as a physician.

Anatomical Board Complains.—The State Anatomical Board of Pennsylvania makes complaint that the pathologists of the Philadelphia Hospital and Almshouse are using about half of the dead bodies of that institution and that this renders it difficult to supply sufficient material to the medical colleges of the state. The pathologists affirm that they are not using more material than is necessary.

Physician Exonerated.—After a trial lasting two and a half days, Dr. Frank R. Gerhart, of Union, was acquitted of malpractice in the suit brought against him by Daniel Shirey. Judge Ermentrout told the jury that there was no evidence presented that there was any lack of skill on Dr. Gerhart's part, and that the experts agreed that nothing could be done to save the leg, and that such being the case, it would be an outrage to find a verdict for the plaintiff. The jury was told that if there were such verdicts no physician would be safe in the practice of his profession.

Philadelphia.

The Philadelphia Pediatric Society is to be addressed, December 9, by Dr. A. Jacobi of New York. A reception will be held after the meeting at the Hotel Stentor in Dr. Jacobi's honor.

The New Hospital Site.—The probability of the purchase by the city of swamp lands for hospital purposes has led to the call for a special meeting of the county medical society to discuss resolutions protesting against such purchase.

Appropriation for Hospital.—The Bureau of Charities, in its estimate of expenses for next year, asked the finance committee of City Councils for $1,250,000 to buy sites and erect buildings for an almshouse, hospital for the insane poor and municipal hospital.

Dr. Judson Daland entertained the members of the Daland Medical Society of the University of Pennsylvania at his residence, November 17, to the number of about 200. Before going to supper the guests listened to an address by Dr. Henry Beates, Jr., president of the State Board of Medical Examiners.

WISCONSIN.

Personal.—Dr. Peter H. Jobse, Milwaukee, started for Vienna, Berlin and Paris November 27.——Dr. William F. Becker has been appointed a trustee of the Milwaukee Hospital for the Insane.

Charged with Fraudulent Practice.—Charles A. Clark, alias Henry Spencer of Rosewell, Marathon County, was placed under arrest, November 25, charged with fraudulently obtaining his certificate to practice. It is charged by the police that Spencer, for a consideration of $50, got his diploma from Dr. Charles A. Clark, Center Lake, Antrim County, Mich.

Against Tuberculosis.—The State Board of Health, in its annual report to be made to Gov. La Follette in January next, will recommend that an appropriation be made for the establishment of a state hospital for the treatment of tuberculosis. It will also urge the legislature to appropriate a large enough fund to carry on the work of stamping out this disease, which, it is believed, can be done if the outdoor treatment, now in vogue in the east, is introduced.

Entrance Examination Requirement.—According to accounts in the Wisconsin newspapers, as a result of the investigation by the State Board of Medical Examiners, all students who apply in the future for admission either to the Milwaukee Medical College or the Wisconsin College of Physicians and Surgeons must pass an examination conducted by a representative of the board. The charges against the College of Physicians and Surgeons were finally withdrawn.

GENERAL.

Government Feeding Test.—The test of various preservatives and their effects on food, health and nutrition is in progress in Washington. Professor W. H. Wiley, chief of the bureau of chemistry of the agricultural department, has begun a series of experiments on twelve young men in government employ, as mentioned editorially in THE JOURNAL of August 9, page 318.

Monument for Virchow.—The German committee in charge of the celebration in honor of Virchow's eightieth birthday is collecting funds to a monument to his memory. The undersigned will receive and acknowledge contributions: Drs. Frank Billings, president of the American Medical Association, 100 State Street, Chicago; Thomas D. Coleman, 505 Greene Street, Augusta, Ga.; A. Jacobi, 19 East 47th Street, New York City; W. W. Keen, 1729 Chestnut Street, Philadelphia; and Wm. H. Welch, 935 St. Paul Street, Baltimore.

Army Medical Staff Praised.—The annual report of the Secretary of War, Hon. Elihu Root, praises the Army Medical Corps and recommends that Major Walter Reed (since deceased) be appointed assistant surgeon-general, with the rank of colonel, and that Major W. C. Gorgas be made deputy surgeon-general, with the rank of lieutenant colonel. Concerning the abolishment of the army canteen, the secretary says:

> I am convinced that the general effect of prohibiting the use of beer and light wines within the limited area of the army post is to lead the enlisted men to go out of the post, to frequent vile resorts which cluster in the neighborhood, to drink bad whisky to excess and to associate intimately with abandoned men and more abandoned women, and that the operation of the law is to increase drunkenness, disease of the most loathsome kind, insubordination, desertion and moral and physical degeneration.

Nobel Prizes for Finsen and Ross.—As THE JOURNAL announced last week, the Nobel research prize of $40,000 has been awarded to Major Donald Ross of the Liverpool School of Tropical Medicine in recognition of his investigations into the mosquito malaria theory. The prize for natural science and chemistry is awarded to Dr. Emil Fischer, University of Berlin, and the prize for physics and medicine is to be divided between Drs. Arrhenius of the Stockholm High School and Finsen of Copenhagen. The formal announcements are to be made in Stockholm, Sweden, December 10, the anniversary of Dr. Nobel's death. The prizes will be presented by King Oscar of Sweden. They are the second of the series provided in the will of Alfred Nobel, the Swedish scientist and inventor of dynamite. He left a fund of about $5,000,000 in the hands of trustees, the income of which was to be paid each year for the the five most notable achievements in the interests of humanity. This income now amounts to the sum of $200,000, making it possible to pay prizes of $40,000 each to those considered most deserving. The two prizes not yet awarded are for the most notable achievement in literature and for the greatest service in behalf of international peace and world disarmament.

CANADA.

St. John, N. B., Vital Statistics.—During the year ended October 31, deaths in St. John due to diseases of the circulatory organs numbered 92; of the respiratory organs, 89; total from all causes, 714.

Ottawa Vital Statistics.—There were 1173 deaths at Ottawa during the past twelve months, as compared with 1273

for the preceding official year. The death rate per 1000, estimating the population of Ottawa at 60,000, was 19.5 as compared with 21.1 for the previous year.

Personal.—Dr. T. A. Starkey, whose appointment as professor of hygiene in the faculty of medicine at McGill University we recently mentioned, arrived in Montreal last week from London.

New Chemical Society at McGill.—A new and much-needed chemical society was recently formed at McGill University, with the following officers: President, Dr. Harrington; vice-president, Dr. Ruttan; secretary, Dr. Evans; executive, Drs. Walker and Barnes. Meetings of the society will be held fortnightly, on alternate weeks with the physical society. This is the first year that such a society has existed at McGill.

Toronto Barbers Want Hygienic Methods.—Representatives of the Toronto barbers waited on the Provincial Board of Health at its meeting last week and discussed with them a report which was presented to the board by Dr. J. J. Cassidy of Toronto. The subject will be introduced at the next meeting of the Toronto Barbers' Association with the idea of initiating definite action along the lines indicated in Dr. Cassidy's report.

Ontario Vaccination Act Out of Date.—The regular quarterly meeting of the Ontario Board of Health was held in Toronto last week. Dr. P. H. Bryce, secretary, presented his annual report, recommending that the old vaccination act of 1863 be repealed and a more simple act passed in its stead. He suggested that the new act provide for a monthly report of all children born in a municipality by municipal clerks to the district medical health officers who would be appointed public vaccinators required to proffer free vaccination to such children at their homes. It should provide also that no children be permitted to enter educational institutions until they presented certificates of vaccination.

FOREIGN.

German Congress Postponed.—On account of the International Medical Congress at Madrid, the German Congress of Internal Medicine, usually held each April, will not convene again until April, 1904.

Unveiling of Bust of Westphal.—A portrait bust of Karl Westphal, for many years chief of the insane and neurologic service at the Charité, Berlin, was unveiled, November 8, with appropriate ceremonies. The bust stands in front of the new psychiatric clinic, and the principal address was delivered by Westphal's successor, Professor Jolly.

Antivivisectionists in Germany.—The German Anti-Cruelty to Animals Society recently brought suit against Dr. Voge, a well-known neurologist at Berlin, for unwarranted vivisection. The suit was dismissed by the authorities as unfounded. Some of the results of Vogt's valuable experimental research have been mentioned in THE JOURNAL.

Large French Army Mortality.—General Andre, French minister of war, said it was a grave question how to combat tuberculosis in the Army. Typhoid fever is also responsible for many deaths. The average annual deaths numbered 2174, while they numbered only 741 in the German Army. Statistics showed that the French Army since the treaty of Frankfort had lost 99,000 men from disease, and the German Army 13,000.

Practice Not Transferable in Germany.—A physician sold his practice to another and sued for the $475 agreed on, which the buyer had failed to pay. The courts at Braunschweig, where the transaction occurred, dismissed the case, claiming that a medical practice is not a marketable commodity, and that a transaction involving its sale is unworthy of the profession and contrary to the best interests of the community.

Warning Against Tetanus from Gelatin.—A local medical society in Germany recently sent a circular to all the druggists in its district warning them that gelatin derived from animals that had died from tetanus was liable to cause tetanus in those injected with it. The value of gelatin as a hemostatic was emphasized, and the fact that sterilization is unable to free it from the toxic action of the virus. The only means of prophylaxis is that the gelatin should be made from animals positively exempt from tetanus.

Students' Number of Progres Medical of Paris.—The issue of this weekly for November 8 contains detailed information in regard to the medical faculties, colleges, etc., the prizes offered, the theses presented, the hospitals and clinics, hours, etc., and every detail to furnish what aims to be a complete medical guide to France and the French-speaking countries. The various scientific societies that have any relation to medicine are also described, and the regulations for admission to the colleges, for license to practice, etc.

Opening for Physicians in Paraguay.—A German physician residing at Asuncion, Paraguay, in a letter to a colleague in Germany, published in the *Allg. Med. Ct.-Ztg.*, states that skilful physicians are sought after in Paraguay and high fees paid. It is difficult to obtain permission to practice as the clique of charlatans intrigue against the admission of foreign physicians. But this obstacle once surmounted the physician finds appreciation. There are comparatively no restrictions to practicing outside of the cities, and yet the field is a good one.

Personal.—The new public hospital at Schöneberg, a suburb of Berlin, has been placed in charge of Professor Albert Landerer of Stuttgart. He has long been director of the Olga Hospital at the latter place.——Von Düring's achievements in combating venereal disease in Turkey have been described in these columns. He has been appointed chief of the official polyclinic for cutaneous and venereal diseases at Kiel.——Dr. Helene Stelzner has been appointed voluntary medical attendant at the Charité, Berlin. She passed the "Staats-Examen" at Halle *summa cum laude*.

German Cancer Research Committee.—The regions in Germany in which cancer was found to be most prevalent according to the recent collective inquiry, are being thoroughly investigated by the central committee. Additional circulars of inquiry have been sent to the physicians practicing there and physicians are to be sent from the central office to study the conditions on the spot. Von Leyden, Kirchner and Wutzdorf are at the head of the cancer research committee and are striving to make it the nucleus for an international committee for the centralization of data on the subject of malignant neoplasms.

Open-Air Sanatorium for Tuberculous Children.—The German Red Cross Society maintained last summer a fresh-air sanatorium for children in a pine grove not far from Berlin, similar to the day resorts which have proved so successful for tuberculous men and women. The results were so strikingly beneficial that six of these open-air sanatoriums are to be arranged encircling Vienna, and the children recognized by the medical school inspectors as anemic or debilitated are to be transferred there. Arrangements are being planned for 1000 children from the start, with medical attendance and kindergarten teachers in charge.

The International Sanitary Conference of the American Republics was in session in Washington this week. The governments of Mexico, Cuba, Chile, Costa Rica, Salvador, Honduras, and the United States were represented. The conference is the outgrowth of the international meeting held a year ago in the City of Mexico. Quarantine and sanitation matters generally were discussed. Measures to improve the existing systems will be considered by an international sanitary bureau before the assembling of the next annual conference. Dr. Walter Wyman, surgeon general of the United States Public Health and Marine-Hospital Service, was elected president, and Dr. Arthur R. Reynolds of Chicago secretary.

Organization in Holland.—The Netherlands Medical Association has completed its fifty-second year of existence exclusively occupied with scientific questions. Its journal has always restricted its contents to strictly scientific communications. The younger members hope to see it transformed to take cognizance of the material interests of the profession, and devote a portion of its space to the questions of organization for material benefits. A letter from Amsterdam in the *Wiener klin. Rundschau* of November 2, describes these conditions and states that energetic social-political measures are required to stem the downward trend of the economic interests of the profession. A special meeting has been called to discuss these questions.

The Mexican Public Health Department.—As early as 1628 the medical men in the Spanish colonies secured the organization of a board of health, and the present "Consejo Superior de Salubridad" of Mexico proudly dates its birth from this beginning. The last *Boletin* contains a historical review of the work accomplished during the centuries, and cites ancient regulations which show the farsighted policy of its members from the earliest times. The fact that its resolutions and advice were not always heeded does not detract from the merit of the council. Since Diaz has been president the council has played an extremely important part in the general progress accomplished. In 1891 it drew up a sanitary code which was officially adopted by the authorities. Dr. Eduardo Liceaga has been the president of the council for a number of years, and

has been a familiar figure at all the sanitary and similar congresses of the last decades in America.

Berlin School Hygiene Association.—Professor Baginsky presided at the first public evening meeting of this new society. The first address was by Hoffa, on the "Origin of Spinal Curvature During School Life," illustrated by drawings and casts. He remarked that "sitting is fatiguing under all circumstances," and that the slight expressions of fatigue in the attitude gradually become fixed habits in children and entail actual curvature. The proportion of scoliotic children constantly increases with the higher classes. Girls are more inclined to it than boys, and in the girls' seminaries more than 50 per cent. of the scholars are affected. He recommended seats with "the minus distance," and appealed most earnestly for frequent gymnastic exercises at brief intervals. Lehmann spoke on "Inheritance and Experience," observing that modern dramatic art has made such a bugaboo of heredity that there is a tendency among teachers to ascribe altogether too much importance to it in their professional work.

LONDON LETTER.

Pathogenic Bacillus Coli in Ice Creams.—In reference to an outbreak of ice-cream poisoning which has recently been described in THE JOURNAL (page 1060), Dr. Klein made an important bacteriologic report. He drew attention to the fact that in several outbreaks of acute gastroenteritis due to the consumption of particular meats the variety of bacillus coli known as bacillus Gärtner had been proved to be the real cause of the disease; but there had been other similar outbreaks of disease in which not the bacillus Gärtner, but other varieties of bacillus coli were the cause; he referred to the Carlisle outbreak (pork pie) described in the reports of the medical officer of the Local Government Board for 1889, and to the Portsmouth outbreak (meat pie) described in the same reports for 1890. Quite recently Dr. Klein has found in certain samples of ice creams a highly virulent variety of bacillus coli which was certainly not bacillus Gärtner. Some of these ice creams were made in shops which were under suspicion of having sold ice cream that caused acute gastroenteritis in a number of boys. The virulent bacillus coli isolated in its action on rodent animals by injection and after ingestion in its cultural and morphologic characters, was described and demonstrated by specimens. The virulent bacillus coli was met with in a succession of samples made on different days by the same maker under very unsanitary conditions as to locality, manipulation and storage. As soon as these unsanitary conditions became amended the ice creams proved harmless to animals. This is an experimental confirmation of the correctness of the recently-passed law as to the manufacture and sale of ice creams.

Cancer Research Fund.

The executive committee have selected Dr. E. F. Bashford, assistant to Professor Sir Thomas R. Fraser of Edinburgh from among the numerous applicants for the post of superintendent of cancer research. Dr. Bashford, who has recently been engaged in research work in Professor Ehrlich's laboratory of Frankfort, and who is acquainted with the cancer research work now going one in Germany, will at once enter on his duties. A special sub-committee on statistics is being formed, and the general organization of the scheme is now being proceeded with as far as the funds will permit. The amount collected as yet is only about $225,000, which is considerably less than the sum necessary to give full effect to all the objects of the scheme.

Colonial Medical Reports.

"Selections from Colonial Medical Reports for 1900 and 1901" has been isued recently. The volume deals largely with tropical medicine. Dr. Thomson of Hong Kong confirms the fact that on the presence of the anopheles depends the number of cases of fever in a given locality. The total destruction of such a large family as the mosquito seems almost impossible, though in individual cases much good may be done. Dr. Harvey of Bermuda discusses the yellow fever epidemics in that colony in 1856 and 1864, and points out several facts which could well be explained by the theory of the dissemination of the disease by mosquitoes. He thinks that probably the culex mosquito has been introduced to Bermuda by ships or travelers, and the reason that there is no malaria is that the anopheles mosquito has not yet been imported. The extermination of mosquitoes in Bermuda, where every house has its tank for drinking water, he thinks impossible, especially as the female culex mosquito will use the smallest collection of stagnant rain water for breeding purposes. Beri-beri receives much attention in several of the reports. It is one of the chief causes of death among the Malays. Dr. W. L. Braddon, state surgeon Negri Sembilan, is of opinion that it is due to the eating of rice, which has been rendered toxic. Dr. Gimlette, acting residency surgeon of Pehang, referring to the observation in Japan that dogs may contract beri-beri, states that at Benton, where beri-beri was very prevalent in 1900, ducks apparently succumbed to the disease in large numbers. In the Dutch East Indies the disease has apparently been found in hens. Another disease, the causation of which is still disputed, is yaws. It has extended considerably in Trinidad and Tobago, in spite of the efforts to combat it. Dr. Lovell, the surgeon-general, thinks that local house infection plays an important part in its dissemination. He advocates the removal of patients and the disinfection of the contaminated area. The report on syphilis from Basutoland shows that the natives there show little manifestation of the disease at its commencement. "The hard chancre is very rarely seen, yet let a single case of syphilis be introduced into a previously clean village, and in a few months a large percentage of the inhabitants, especially children, will be found with secondary eruption." It is noteworthy that in Europeans who contract the disease from natives the classical features are always observed. Dr. Otto Galgey, in reporting from St. Lucia on the filaria sanguinis hominis, refers to Dr. Lowe's discovery that filaria is directly inoculated into men by the bite of the mosquito.

Correspondence.

A Higher Standard of Entrance to Ohio Medical Schools.

COLUMBUS, OHIO, Dec. 1, 1902.

To the Editor:—We have read with approval your editorial entitled "A Higher Standard of Entrance to Ohio Medical Schools" on page 1326 of THE JOURNAL of Nov. 22, 1902, but we wish to call your attention to an error which we find in the last paragraph of this editorial. The paragraph referred to reads as follows:

> It is not to be expected that any new methods will be perfect from the first, and the present defects in the Ohio system, the lack of uniformity of examinations by the different examiners, for example, are only the temporary imperfections of a new machine that will be remedied by time and use.

We beg to take exceptions to the statement that there is a lack of uniformity in the examinations for entrance to medical colleges in the State of Ohio. The questions used in the examinations in the four cities, Cincinnati, Cleveland, Columbus and Toledo, are exactly the same, are given out at exactly the same hour and on the same day, so that we regard these examinations as nearly uniform as can be made unless the entire examination should be conducted in one city and under the supervision of one man.

The four examiners meet together previous to each examination and agree among themselves as to the standard of grading. We also desire to call your attention to section 4403-c of the law regulating the practice of medicine and surgery in the State of Ohio; also to the enclosed list of questions which were given out at all the entrance examinations in September of this year.

In justice to the Ohio Board, we would request that the error be corrected. Very sincerely,

N. R. COLEMAN, President.
FRANK WINDERS, Secretary.

[We are glad to publish the above communication. The objectionable paragraph in our editorial referred to was based on criticisms made by gentlemen in Ohio. While in that state recently we took occasion to learn how the profession liked the new law and its working, by interviewing several interested parties. With practical unanimity all agreed that the change was a good one, although it was hurting the colleges. The only criticism made was that the examination in the four cities was not uniform. None of those interviewed seemed to know that the same questions were asked at all the examinations, and that they were, therefore, uniform. Three or four gentlemen were very insistent that this supposed lack of uniformity was a most grievous affair. An intimation was made, for instance, that the standard of examination for entrance into the Cincinnati medical schools was very much higher than for the schools in certain other cities. On the other hand, a gentle-

man from Columbus assured the writer that the standard in Cincinnati was much lower than in Columbus, that in the latter city being, in fact, higher than in either of the other three cities. We are especially glad to be able to convey the information to the Ohio profession that there is a uniformity in these entrance examinations in their state. We wish that those who are interested in medical education, as well as those who have any interest in medical legislation, would look into the Ohio law. There are now three states—Ohio, New York and Pennsylvania—which have taken from the medical colleges the control of the entrance requirement.—ED.]

A Simple Chloroform Dropper.

WASHINGTON, D. C., Nov. 27, 1902.

To the Editor:—To obtain a dropper which will drop and not flow in a small stream or fail to drop except by violent agitation, I have adopted the following plan:

A piece of toothpick or a match stem is inserted between the cork and neck of the bottle, the rapidity of the flow being controlled by the tightness of the cork or the size of the splinter. The toothpick is then broken off close to the cork. It does not become occluded, and the number of drops each minute are about the same. It fills every requirement that the more expensive dropper does, and in some respects is far superior. Not infrequently we are compelled to intrust the anesthetic to an inexperienced person, and we have a little less concern if we know that the chloroform can be given drop by drop only, and by no possible chance can be poured on in larger quantities.

Further, we are often called on to administer anesthesia most unexpectedly; in those instances, this impromptu dropper is a friend in need. It may be given from the original container and without notching the cork, as is sometimes done, thus subsequently losing chloroform by leakage and evaporation.

I do not claim originality for this method, but saw it first used by Dr. W. P. Carr of this city, and have since used it frequently with great satisfaction. CHAS. S. WHITE.

State Boards of Registration.

Schedule of Minimum Educational Requirements of Medical Colleges, Adopted by the Colorado State Board of Medical Examiners, October 7, 1902.

Dr. S. D. Van Meter, secretary, sends us the following schedule:

On and after Jan. 1, 1903, no medical school will be considered in "good standing" which does not, as a minimum, require the following schedule:

CONDITIONS OF ADMISSION TO LECTURE COURSES.

1. Creditable certificates of good moral character signed by two physicians of good standing in the state in which the applicant last resided.

2. As evidence of preliminary education, as a minimum requirement, a diploma or certificate of graduation from a high school, or a certificate signed by a principal of a regularly organized high school, or by the examiner of the faculty of a recognized literary or scientific college or university, or by the state superintendent of public instruction, or a superintendent of public schools, of having successfully passed an examination in all the several branches embraced in the curriculum of a four years' high school course. The matriculation examination shall not be conducted by any member of the faculty of the medical college.

The Colorado State Board of Medical Examiners will require each applicant for a state certificate to present documentary evidence of his preliminary education, together with his medical diploma, when applying for license on a diploma dated after Jan. 1, 1903.

The conditions above set forth will govern in the case of all persons admitted to the freshman year of a medical college in "good standing" on or after Jan. 1, 1903.

ADVANCED STANDING.

Applicants holding the degree of A.B. or B.S., or an equivalent degree, from a regularly established college of arts or science, which requires an attendance of three or more years as an essential to graduation, may be given credit for work done in the branches of the medical curriculum of the first year and may be advanced to the sophomore year of a four years' medical course, on condition that they comply with the entrance requirements of this board and that they subsequently complete the work of the freshman year if not already completed, and that the work already taken shall not be below the standard required by this board.

The same advanced standing may be allowed on the same conditions to applicants presenting a degree from a recognized college of dentistry or college of veterinary medicine, or documentary evidence of having completed in a reputable university or college of arts or science the major part of the work usually embraced in the curriculum of the freshman course of a recognized medical school.

No such advanced standing shall be allowed until after the applicant shall have either graduated as indicated or performed the work specified above, and not until three months after the completion of said work.

The above requirements for advanced standing will govern in the case of all persons admitted to the sophomore year of a medical college on or after Jan. 1, 1903, and may be made operative prior to that time.

Graduates of medical colleges recognized at any time by the Colorado State Board of Medical Examiners may be admitted to any class without examination. Students of said colleges who possess certificates of attendance and of successful examinations can enter without examination the term immediately following that previously attended. The student shall be required to pass an examination in all branches in which he has been found deficient. Students who have attended one or more full terms in colleges not fully recognized by this board may be granted advanced standing in accordance with such attendance, on complying with the entrance requirements set forth in the conditions of admission to lecture courses, and passing all examinations and performing all laboratory work of the classes below that which they enter, providing that the work already done conforms to the requirements of this board.

Graduates or students of colleges to which no recognition is given by the Colorado State Board of Medical Examiners can be granted no advanced standing whatever.

LENGTH, NUMBER AND CHARACTER OF COURSES OF LECTURES.

The college shall have a four years' course of instruction, consisting of four terms, extending over a period of four calendar years, and the minimum time between the commencement of the work of the freshman year and the ending of the work of the senior year, on which all students are required to be in attendance, shall be not less than forty months. No two terms begun on or after Jan. 1, 1903, shall commence and end within any consecutive sixteen months.

The time occupied in each regular term begun on or after Jan. 1, 1903, shall be not less than seven months or thirty weeks, and each such term shall consist of not less than eight hundred hours of work.

The branches of medicine to be included in the course of instruction shall be at least as follows: (1) Anatomy, (2) physiology, (3) chemistry, (4) materia medica and therapeutics, (5) theory and practice of medicine, including ophthalmology, otology, dermatology and neurology, (6) pathology and bacteriology, (7) surgery, including orthopedic surgery, (8) obstetrics, (9) gynecology, (10) hygiene (11) medical jurisprudence (forensic medicine).

ATTENDANCE.

Regular attendance during the entire lecture courses shall be required, allowance being made only for absences occasioned by the sickness of the student or his immediate family, such absence not to exceed 20 per centum of the course.

DISSECTIONS, CLINICS AND HOSPITAL ATTENDANCE.

1. Each student must have dissected at least the lateral half of a human cadaver.

2. He shall have received clinical and hospital instruction throughout at least two annual terms.

INSTRUCTION.

The college must have a sufficient and competent corps of instructors, and facilities for teaching, dissections, ambulatory and hospital clinics such as obtain in the majority of medical colleges in the United States.

GRADUATION.

No student shall be graduated by any medical college in "good standing" with the Colorado State Board of Medical Examiners who has not completed four full terms of lectures, as prescribed by the rules of the said board (certain persons to whom advanced standing is allowed excepted), and has complied with the requirements of the said college, as set forth in the published announcement of the college, and has completed in the college, by which his diploma is granted, a continuous course of lectures in the senior year of at least seven months in duration.

FURTHER CONDITIONS OR RECOGNITION OF MEDICAL COLLEGES.

1. Only regularly conducted and legally chartered medical colleges which conform to the conditions of admission to lecture courses, the course and period of study, the number, character and length of lecture terms, the duration of attendance on hospital and clinical instruction, as set forth in the schedule of minimum requirements adopted by the Colorado State Board of Medical Examiners, and the other requirements of a medical education which obtain as the practice of a majority of the established medical colleges in the United States, shall be considered medical institutions in "good standing" according to the purpose of the Act to Regulate the Practice of Medicine in the State of Colorado.

2. No medical college can be in "good standing" until it has established its claim to such standing by an active existence of not less than four years, and then only on compliance with the terms of the first condition. *Provided*, that colleges which after a personal investigation made by a committee of the Colorado State Board of Medical Examiners are shown to comply with the schedule of minimum requirements and to possess a sufficient and competent corps of instructors, and the necessary facilities for teaching, may, at the discretion of the board, be granted full recognition during the first year of existence.

3. All medical colleges in "good standing" with the Colorado State Board of Medical Examiners will be required to publish in their annual announcements or catalogues a complete list of all matriculates and a separate list of all graduates of the session or year immediately preceding.

4. No medical college will be considered in "good standing" with the Colorado State Board of Medical Examiners which publishes in its annual announcement or catalogue, or otherwise, any misrepresentations regarding the curriculum of the college or the facilities for instruction or the number of students matriculated or graduated.

All rules and regulations governing medical colleges which have been heretofore adopted by the Colorado State Board of Medical Examiners will stand repealed on Dec. 31, 1902.

District of Columbia Report.—Dr. Wm. C. Woodward, secretary of the Board of Medical Supervisors, of the District of

Columbia, reports the examination held at Washington, October 9, as follows: Number of subjects examined in, 17; total number of written questions, 80; percentage required to pass, 75; partly oral and partly written examination; total number examined, 11; passed, 10; failed, 1.

PASSED.

Candidate.	Sch. of Pract.	College.	Year Grad.	Per Cent.
349	R.	College of P. and S., New York	1902	85.41
336	R.	Columbian University	1901	83.12
339	R.	Columbian University	1902	88.47
340	R.	Columbian University	1902	90.03
344	R.	Columbian University	1902	81.37
334	R.	Columbian University	1902	87.25
348	R.	Georgetown University	1901	87.22
345	H.	Hahnemann Med. Coll., Phila.	1901	85.05
315	R.	Johns Hopkins Medical School	1901	84.18
335	R.	Woman's Med. Coll., Philadelphia	1897	87.44

FAILED.

347	R.	University of Pennsylvania	1898	68.75

Queries and Minor Notes.

ANONYMOUS COMMUNICATIONS will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish his name will be faithfully observed.

NO NOTICE TAKEN OF UNSIGNED COMMUNICATIONS.

In spite of the notice at the head of this department we are daily receiving unsigned communications, many of which we should be glad to notice. We repeat that every unsigned letter received is consigned to the waste basket, without reading, if the fact that it is not signed is discovered before it is read. We do not print the names of writers if requested not to do so.

FOWLER'S POSITION.

MATAGORDA, TEX., Nov. 10, 1902.

To the Editor:—Will you please inform me in your query column as to what is meant by Fowler's position in appendicitis?

S. A. FOOTE, M.D.

ANS.—We presume our correspondent refers to the upright position in which the patient is placed after abdominal operations; a position which, we believe, was first advocated by Dr. G. R. Fowler of Brooklyn, some two years ago. Instead of being put in bed in the horizontal position, the patient is placed in the "sitting up" position, so that the trunk is perpendicular. The object of the position is to facilitate drainage into the pelvis since septic processes confined to the lower part of the peritoneal cavity are less liable to result seriously than would be the case higher up, or in the diaphragmatic region. This position is adopted by some surgeons after all abdominal operations.

REMEDIES FOR OBESITY.

NEWARK, N. J., Nov. 28, 1902.

To the Editor:—On p. 1269 of THE JOURNAL I notice that you refer an inquirer to Von Noorden's article and forget all about the work of our American investigator, Heinrich Stern, on this subject. You yourself published an essay of Dr. Stern's on this subject which in my opinion is classic. I am very much astonished that you should have allowed such an omission. W. O. BAILEY.

ANS.—We regret the oversight, and thank our correspondent for calling attention to it. Dr. Stern's article is one of the most important that has been written on the subject. It appeared in THE JOURNAL of February 15, p. 447, of vol. xxxviii.

Marriages.

W. J. REDFIELD, M.D., Union, Neb., to Miss Roe of Omaha, Neb., November 19.

FRANK J. POWERS, M.D., to Miss Annie Theresa Grogan, both of Baltimore, November 19.

EDWARD H. BOUNDS, M.D., to Miss Ellene Drescher, both of Hannibal, Mo., November 19.

THOMAS F. STALEY, M.D., to Miss Sue Sayers Reynolds, both of Bristol, Va., November 18.

FRANCIS J. WELSH, M.D., to Miss Minnie Doremus, both of Kalamazoo, Mich., November 26.

BAKER FORE, M.D., Marion, S. C., to Miss Aline Cole of North Birmingham, Ala., November 15.

EDWARD V. MILHOLLAND, M.D., to Miss Ella Cecilia Gordon, both of Baltimore, November 19.

SAMUEL B. ALISON, M.D., Carlowville, Ala., to Miss Emma Lide of Richmond, Ala., November 27.

GEORGE EDWARD KINCAID, M.D., Clinton, Iowa, to Miss Grace Gould of St. Louis, Mo., November 24.

ALFRED LARGE, M.D., Great Barrington, Mass., to Miss Sabina E. Archibald of Darien, Conn., November 15.

FRANK H. MUNKWITZ, M.D., to Miss Hedwig Josephine Elser, both of Milwaukee, Wis., December 3.

JOHN ARCHIBALD BROWN, M.D., Kankakee, Ill., to Violet Henriette Palmer, M.D., Chicago, November 27.

ABRAHAM D. MURPHEY, M.D., Cincinnati, Ohio, to Miss Kate May Anderson of Owensboro, Ky., November 20.

WILLIAM B. PIGG, M.D., South McAlester, I. T., to Miss Florence Rosser of Fayetteville, Ark., November 14.

NEWTON S. BACON, M.D., North Cambridge, Mass., to Miss Anne Rogers Dustin of Gloucester, Mass., November 6.

FRANCIS ALBERT BAKEMAN, M.D., Franklin, N. H., to Miss Mabel Pierson Johnson of Winthrop, Mass., November 12.

JOHN S. PINE, M.D., of Frederick County, Va., to Miss Ella M. White of Lebanon Church, Shenandoah County, Va., November 19.

Deaths.

Thomas H. Price, M.D. Jefferson Medical College, Philadelphia, 1876, died at the Episcopal Hospital, Philadelphia, November 22, from sepsis consequent on a splinter wound of the hand, after an illness of two weeks, aged 54. He was a member of the Philadelphia County Medical Society and of the Philadelphia Emergency Corps.

Frederick Eugene Potter, M.D. University of Vermont, Burlington, 1860, who served throughout the Civil War, and for ten years thereafter as a surgeon in the U. S. Navy, and then practiced in Portsmouth, N. H., died at his home in that city, November 18, after a lingering illness, aged 63.

J. A. Ferguson, M.D., Ottawa, the hero of the disastrous fire at the Laurentian Sanitarium at Ste. Agathe des Monts, Quebec, some months ago, died at the home of his parents, November 19, aged 29. It is only a few weeks since he was presented with the Humane Society's medal.

William T. Garwood, M.D. Cooper Medical College, San Francisco, 1864, for nearly 40 years a practitioner of that city, died, November 21, from paralysis, after an illness of two years, aged 65.

Lee B. Windham, Jr., M.D. Medical College of Alabama, Mobile, 1900, died, November 14, at Stafford, Ariz., where he had gone for his health from his home in Stone, Ala., a few weeks before.

Edwin G. Granville, M.D. Kansas City Hospital College of Medicine, 1885, died at his home in that city, November 24, from spinal disease, after an illness of twelve years, aged 59.

Z. R. Millard, M.D. Medical College of Evansville, Ind., 1846, one of the oldest practitioners of Southern Illinois, died at his home in Thackery, Hamilton County, November 19.

Philip P. Duval, M.D. University of Virginia, Charlottesville, 1846, died at his home in Richmond, November 20, from pneumonia, after an illness of eight days, aged 75.

George A. Hillsman, M.D. Jefferson Medical College, Philadelphia, 1888, died at his home in Livermore, Ky., November 19, from pneumonia, after a short illness, aged 40.

Henry J. Cushing, M.D. Harvard University Medical School, Boston, 1868, died at his home in Merrimac, Mass., November 18, from angina pectoris, aged 65.

Charles H. Shaffer, M.D. Western Reserve University, Cleveland, Ohio, 1882, died at his home in Elizabeth, Pa., November 21, after a brief illness, aged 44.

Charles C. Sprague, M.D. Rush Medical College, Chicago, 1869, died suddenly at his home in Hull, Ill., November 19, from heart disease, aged 67.

A. C. Brasel, M.D. Tennessee Medical College, Knoxville, 1901, died at his home in Petros, Tenn., November 21, after an illness of six weeks.

John M. Cunningham, M.D. University of Louisville, Ky., 1891, died at Marlinton, W. Va., November 20.

Deaths Abroad.

Dr. Wulffert of Berlin, founder and president of the "Society of Abstinent Physicians," died November 5.——**Dr. F. Fuhr,** professor of surgery at Giessen, died in that city, November 3. His works include articles on the enucleation of the thyroid

gland, surgical treatment of intestinal occlusion, also a historical study of goiter in antiquity.——**Dr. Joaquim de Magalhaes,** the oldest physician in Brazil, died at Baepen, October 10, aged 93. He was also prominent as a member of the legislature.

Dr. **E. Liebendoerfer,** formerly a medical missionary to India, died at Stuttgart in his fiftieth year. He served as a missionary for some years and then studied medicine, returning for ten years' service as a medical missionary, until compelled to leave India by failing health. He was the principal founder of the German Society for Medical Missions, and the fine hospital now approaching completion at Cameroon is mainly due to his efforts.

Sensai Nagayo, M.D., court councilor and president of the Central Sanitary Board, Japan, the father of sanitation in that country, died at his home in Tokyo, recently, aged 63.

Dr. **Monere,** mayor of Palaiseau, aged 95, who commenced the practice of medicine in 1830. He was a member of the *Conseil général* of the Seine for fifty years.

Book Notices.

A TEXT-BOOK OF SURGERY. By Dr. Hermann Tillmanns, Professor in the University at Leipsic. Translated from the Seventh German Edition by Benjamin T. Tilton, M.D., Instructor in Surgery, Cornell University, and John Rogers, M.D., Instructor in Surgery, Cornell University. Edited by Lewis A. Stimson, M.D., Professor of Surgery, Cornell University. Volume I. The Principles of Surgery and Surgical Pathology. With 516 Illustrations. Cloth. Pp. 841. Price, $5.00 per volume. New York: D. Appleton & Co. 1901.

Tillmanns' Surgery has been a standard work in Germany for many years, and the great popularity of the work has been well deserved. The English translation of the seventh edition by Drs. Tilton and Rogers places in the hands of those unable to read German a work of great value, and the labor of the translators will certainly be appreciated. The amount of space devoted to the subjects in this first volume is not only an indication of their importance, but also of the very thorough manner in which they are covered. It is unfortunate that such German works are only translated after another edition has appeared, or is about to appear in the original, so that the translation is always one edition behind; but notwithstanding this fact the translation of Tillmanns' Surgery is a very valuable addition to English surgical literature.

THE STORY OF A LIVING TEMPLE. A Study of the Human Body. By Frederick M. Rossiter, B.S., M.D., and Mary Henry Rossiter, A.M. Cloth. Pp. 348. Price, $1.00 net. Chicago, New York and Toronto: Fleming H. Revell Co. 1902.

This book is intended for, and will be read with profit by, children no matter of what age. It is the story of the living temple—the body—told in simple language so that the youngest who can read will understand. It is the child's text-book of anatomy and physiology, yet free from even a hint of a technical word. A religious and moral sentiment pervades the work, and no occasion is lost to call attention to the harmful habits in living, in eating and in drinking, to the harm in fast eating, improper foods, tobacco, alcohol, tea, coffee, etc. While facts are sometimes sacrificed to theory, and slight exaggeration is occasionally indulged in, on the whole the book is one to be highly commended. It is written in an entertaining, simple, yet dignified style, so that the reading of it by the average boy or girl will be not only profitable, but a pleasure.

HUMAN EMBRYOLOGY AND MORPHOLOGY. By Arthur Keith, M.D. (Aberd.), F.R.C.S. (Eng.), Lecturer on Anatomy, London Hospital Medical College. Illustrated. Pp. 324. Price, $4.50. London: Edward Arnold. 1902. New York: Longmans, Green & Co., Agts.

The necessity of a knowledge of human embryology is constantly becoming more apparent, particularly to the surgeon, as many pathologic conditions are to be comprehended only by a thorough understanding of the evolutionary development of the various organs and tissues of the body. In the present volume not only is the embryology clearly described, but where possible particular mention is made of the effects of arrest of development and the surgical importance of vestigia atavisms, etc. The arrangement of the matter seems rather peculiar, as the work begins with a description of the development of the face and neck, with the accessory cavities and sense organs, before anything is said of the various layers of the embryo from which the various organs and parts are developed. It would seem more rational to begin at the beginning, but notwithstanding the confusion in the arrangement of the matter, the work is a very deserving one.

THE TREATMENT OF FRACTURES. By Chas. L. Scudder, M.D., Assistant in Clinical and Operative Surgery, Harvard Medical School. Third Edition, Revised and Enlarged. Octavo, 480 Pages, with 645 Original Illustrations. Polished Buckram. Price, $4.50 net. Philadelphia and London: W. B. Saunders & Co. 1902.

The first edition of this book appeared in 1900, the second in 1901, and the third in 1902, a record which in itself is a sufficient recommendation of the excellence of the work. As the former editions were reviewed in these columns, it is only necessary to state that in this, the third edition, much new matter has been added. Deserving of particular mention is the chapter on gunshot fractures of the long bones, based on recent experiences in the late wars. Several uncommon fractures have also been illustrated and described, which add to the value of the work. The same excellence in point of illustration, paper and print has been maintained in this as in the former editions.

TEXT-BOOK OF MEDICAL JURISPRUDENCE AND TOXICOLOGY. By John J. Reese, M.D., Late Professor of Medical Jurisprudence and Toxicology in the University of Pennsylvania. Sixth Edition. Revised by Henry Leffmann, A.M., M.D., Professor of Chemistry and Toxicology in the Woman's Medical College of Pennsylvania. Cloth. Pp. 660. Price, $3.00 net. Philadelphia: P. Blakiston's Son & Co. 1902.

This edition of Reese's medical jurisprudence has been revised, bringing it up to date, noticing more modern procedures, agents, etc., which need consideration under this head. In other respects it is largely the same as its predecessors and will probably hold its place in the literature of this important department of law and medicine.

KIRK'S HANDBOOK OF PHYSIOLOGY. Revised by William H. Rockwell, Jr., M.D., and Charles L. Dana, A.M., M.D., Professor of Diseases of the Nervous System, Cornell University Medical College, New York. Seventeenth American Edition. With Upwards of 500 Illustrations, Including Many in Colors. Cloth. Pp. 854. Price, $3.00. New York: Wm. Wood & Co. 1902.

The rapid appearance of new editions of Kirk's Physiology shows in what favor it is held. In the present one the chief changes are found in the articles relating to physiologic chemistry, the very marked advances in this department having required them. In other respects the work is much the same as the previous edition.

A BRIEF OF NECROSCOPY AND ITS MEDICOLEGAL RELATIONS. By Gustav Schmidt, M.D. Pp. 186. Price, $1.00 net. New York and London: Funk and Wagnalls Company.

This is a pocket manual prepared to meet the special needs of a physician, lawyer and expert witness, produced in very compact form with leather binding, rounded edges, and one that will undoubtedly be largely used by lawyers and others who have to deal with the cases of autopsies, etc., in legal practice. It seems to be well arranged and fairly full, and the diagrams in the beginning will be an aid to the lay users of the work.

THE QUEEN SELF-REGULATING X-RAY TUBE. Paper. Pp. 35. Queen & Co., Inc., 110 Chestnut St., Philadelphia.

While this is only a trade catalogue it is deserving of mention in these columns from the fact that it contains illustrations showing in actual colors the appearance of *x*-ray tubes when operating under different conditions. These are unique and will be interesting to those using the *x*-ray machine.

Medical Organization.

OHIO.

When the Constitution and By-laws proposed for State Associations by the Committee on Organization of the American Medical Association were adopted by the Ohio State Medical Association at its Toledo meeting, on May 29, 1902, only a very few changes were made. The amendments made are as follows:

CONSTITUTION.

Article VIII, Section 1. Provision was made for four vice-presidents instead of three.

BY-LAWS.

Chapter IV, Section 2. The second word was made "shall" instead of "may," so that it is mandatory on the house of delegates to create councilor districts.

Same chapter, Section 13. The following phrase was added to the end of the section: "providing it shall not make void the verdict of a referendum."

Chapter VI, Section 2. The concluding words: "the council shall select one of the vice-presidents to succeed him" were struck out, and the following substituted: "the vice-presidents shall succeed him in the order of their election."

Chapter IX, Section 1. The annual dues were fixed for the present at $1 instead of $2.

Chapter X, Rules of Conduct, was reconstructed, and now reads as follows: "The ethical principles governing the members of the American Medical Association shall govern the conduct of the members of this association in their relations to each other and to the public."

A few other minor and unimportant verbal changes were made.

The reorganized association voted that until the next annual meeting the greater part of the routine work of the association, including especially the collection of the annual dues from members, should proceed as formerly under the old form of organization.

To the council of ten members was left the work of dividing the state into provisional councilor districts.

One councilor, Dr. Brooks F. Beebe, Cincinnati, has already assisted a number of the neighboring county societies, and as a result the Adams County Medical Society has adopted the new constitution and by-laws, and its secretary, Dr. O. T. Sproull of West Union, has forwarded to the secretary of the state association a full report on all the physicians in Adams County. This admirable piece of work clearly shows that the societies in counties not containing many large towns can very readily comply with the requirement in the state constitution that full lists of all physicians practicing in the county shall be made out each year, providing their secretaries are sufficiently interested.

Fayette County (Tenn.) Medical Society.

The physicians of Fayette County met at Somerville, November 12, for the purpose of organizing a county medical society. After a short explanation from Dr. Isaac A. McSwain, Paris, councilor for the district, and Dr. James A. Albright, Somerville, of the plan of organization, the following officers were elected: Dr. William B. Granberry, Somerville, president; Drs. David M. Morrow, Oakland, and M. M. Moody, Brinkley, vice-presidents, and Dr. A. B. Yancey, Jr., Williston, secretary and treasurer. Dr. James A. Albright was elected delegate to the Medical Association of the State of Tennessee.

Marquette County (Mich.) Medical Society.

This society, a branch of the Michigan State Medical Society, was organized, November 14, in Marquette. The new society will include in its jurisdiction Alger County, which has not a sufficient number of physicians for a separate organization. The constitution and by-laws recommended by the state medical society were adopted. Officers were elected as follows: President, Dr. John H. Andrus, Ishpeming; vice-president, Dr. Orrin G. Youngquist, Marquette; secretary, Dr. Harry J. Hornbogen, Marquette, and treasurer, Dr. George D. Beech, Champion.

Pulaski County (Ark.) Medical Society.

At a meeting, in Little Rock, November 17, the name of Little Rock Medical Society was changed to Pulaski County Medical Society. The constitution and by-laws as promulgated by the American Medical Association were adopted. The annual election of officers resulted as follows: Dr. Robert B. Christian, president; Dr. Anderson Watkins, vice-president; Dr. Charles C. Stephenson, secretary, and Dr. Rezin W. Lindsey, treasurer and librarian, all of Little Rock.

Williamson County (Tenn.) Medical Society.

A large number of physicians of Williamson County met at Franklin, November 15, to organize a county society. Dr. James P. Hanner, Franklin, was elected president; Dr. J. Blythe Core, Bethesda, vice-president, and Dr. Samuel White, Franklin, secretary. Dr. Worcester A. Bryan, Nashville, representing the Medical Association of the State of Tennessee, was present, and addressed the meeting and assisted in the organization of the society.

Kent County (Mich.) Medical Society.

About 100 physicians met in Grand Rapids, November 14, and formed the preliminary organization of the Kent County Medical Society, to be under the jurisdiction of the Michigan State Medical Society and the American Medical Association. Dr. Ralph H. Spencer was made temporary chairman and Dr. J. Harvey Innis, temporary secretary, both of Grand Rapids. Dr. Joseph B. Whinery, Grand Rapids, outlined the position of the proposed organization relative to its connection with the state and national bodies. A committee was appointed to pass on names and standing of the members who signed the following agreement: "We, the undersigned, agree to abide by the laws and regulations of the State Medical Society, to practice medicine without reference to school or pathy and to abide by the Code of Ethics as set forth by the American Medical Association. At the meeting for organization, November 21, Dr. Schuyler C. Graves was elected president; Dr. Richard R. Smith, vice-president; Dr. Francis J. Lee, secretary, and Dr. Leonidas E. Best, treasurer.

Medical Societies and the American Medical Association.

The following is quoted from the *Charlotte Medical Journal*:

One of the very vital and important subjects to the medical profession to-day is that of becoming more completely organized; that is, that there may be acquired a more nearly full membership of the societies of the United States in comparison to the whole number of physicians in active practice.

Such an organization of the profession in the Union would be of the greatest good to the largest number, in the truest meaning, of which the expression may be applied. Such an organization of the medical profession in the United States would be a power for the general good to our whole population. There would then be an influence which when exerted upon the legislative bodies for the purpose of securing sanitary measures or of prosecuting state medicine, would accomplish the object desired. Those means could thus be secured, which would add to the physical and moral welfare of every individual and of the whole population of the nation.

Besides, such an organization would be a vast post-graduate course to every physician in the land, serving not only as a continuation of the clinical atmosphere to the recent graduate, but a continuous school for the general practitioner, who strives to keep abreast of the real progress of the professional and scientific work in medicine. Dr. Nicholas Senn, in his presidential address in 1897, before the American Medical Association, said: "The medical societies, large and small, are the legitimate and proper post-graduate schools.'

Through such means the profession takes a higher rank and each individual member thus becomes more proficient in his daily work. Through such physicians the patient is the gainer through the increased power which the physician possesses.

A united and organized profession will be able to more effectually study the great problems of scientific interest.

Every honorable medical practitioner in the United States who is eligible to membership in the medical society of his county should ally himself with the organized body and become an earnest, active member. He thus aids an association that will help him.

Every physician owes it as a duty to himself, to the society of the county in which he lives; he owes it to the whole organization as a profession of which he is a member; and he owes it especially to his patients who call him and confide in his ability to give them the recognized advantages which modern medical knowledge promises.

If a physician wishes to raise the query, does it justify him in becoming a member of and taking an active part in the work of a local medical society? let him look at the members of the medical profession throughout the United States, throughout the world, and observe where the great thinkers, the prominent and most successful practitioners, the leaders in the profession stand in regard to society work. He will observe that all of them are active in their local society work. There, all new thoughts or discussions are first presented. If such men are justified in expending time and means in the work of the medical society, the encouragement should apply to every prac-

titioner. Dr. J. B. Donaldson, in an address before the Medical Society of Washington County, Pennsylvania, quoted in *The Pennsylvania Medical Journal* for August, 1902, in an editorial, "Membership in County Societies," said: "To meet the medical men of our county is a treat that you can not afford to dispense with; it is a legitimate excuse to get 'out of the rut' and take a day off, that will do you good, socially as well as scientifically."

On the other hand, where do we find the charlatan? Isolation suits him best; he prefers secrecy for all of his methods of alluring the unwary. The more isolated a man becomes in his work the more narrow and egotistical he becomes in his views.

The American Medical Association in its reorganization plan, with the affiliated state and county societies, has in view the enlistment of every eligible regular practitioner in the Union. This should receive the thoughtful consideration of all practitioners who are not already members of a society, as well as encouragement of those who are already thus connected.

In 1903 the American Medical Association will meet at New Orleans. This will present again the opportunity for the practitioners of the southern states to be present at this scientific body, and to watch and take an interest in its proceedings. Let those who are eligible to membership in county societies secure such membership at once, that they may thus be in position to secure membership in the National Association and be entitled to attend the meeting next year.

Let as many physicians of the south as possible plan their arrangements that they may be present at the meeting and go prepared to help make it one of the greatest and most successful meetings in the history of the Association.

Association News.

The New Orleans Meeting.

To show that the profession of New Orleans is actively at work to make the next session of the American Medical Association a successful one, we copy the following from the December number of the *New Orleans Med. and Surg. Journal:*

The local Committee of Arrangements held a meeting, November 15, at the New Orleans Polyclinic, with the following members present: Dr. Isadore Dyer, Chairman; Drs. John Callan, Finance Committee; E. S. Lewis, Postoffice Committee; E. Souchon, Transportation Committee; Q. Kohnke, Exhibits; H. B. Gessner, Badges; R. Matas, Registration; J. F. Oechsner, Halls; F. A. Larue, Publication. Besides there were Dr. J. B. Guthrie, Secretary of the Committee, and Drs. C. J. Miller and E. Moss, representing other sub-committees.

The Chairman called attention to the purpose of the meeting as crystallizing the plans for the coming meeting of the Association. He stated that all of the committees had been organized and were well under way. He had communicated with each of the sections, and the secretaries of most of these had advised him of the probable attendance of each and the likely number for the banquet. Southern journals had been circularized with an idea of developing attendance through the Southern states.

Dr. Callan reported that the Finance Committee had held several meetings and had decided to issue a circular to the lay public, about December 1, appealing for contributions and stating the importance and character of the convention in May. The medical profession were to be circularized by the respective arrangements committees of the Association and of the State Society. It was decided to name a representative of the Association in each of the Congressional Districts in the state in order to derive contributions from that source. This plan had been agreed upon because of the proffer of assistance from country members who were anxious to share the honor and burden of the entertainment.

Dr. Gessner reported for the Committee on Badges that he had secured designs and prices from several manufacturers, which he submitted for the advice of the general committee. He had been unable to get any information from the 1902 committee, but he had secured a sample of the badge and souvenir of the St. Paul meeting. After some discussion it was decided that the committee be authorized to further investigate designs and to secure bids on 5200 badges at a price not to exceed $800. It was the sense of the committee that the souvenir should be suggestive of New Orleans, and at the same time of sufficient attractiveness to be taken away as a token of the city.

Dr. Oechsner, for the Committee on Halls, presented a very interesting report, showing the capacity in floor space and seating of the several available halls in the city and elaborating the plan of disposition of the several sections and bodies requiring accommodation. The work of this committee practically disposed of the plan of the meeting, and it was agreed that, unless strong reasons were advanced to the contrary, the meeting should be held in the section of the city including Tulane Hall, Tulane and Crescent theaters, Orleans Parish Medical Society, the Polyclinic, Medical College, Charity Hospital, Grunewald Hotel, as these afforded ample seating accommodations as well as space for exhibits, etc.

Dr. Parham reported that the Committee on New Membership had already begun circularizing neighboring states and that some 6000 eligibles would be reached within the next few weeks. Already a large number of members had been enlisted in Louisiana.

Dr. E. S. Lewis reported that the Postoffice Committee had conferred with the Postmaster of New Orleans, who had promised to supply alphabetically arranged boxes for the distribution of mail, which was to be delivered at the Bureau five times a day.

Dr. Martin reported, through Dr. Moss, for the Committee on Hotels and Boarding Houses, giving the hotel capacities and relating that a systematic bureau of information would be established regarding boarding houses, a list of which was already being made. At the recent bankers' convention this system had been used and had been found satisfactory.

Dr. Matas reported for the Committee on Registration that he had received full instructions from the treasurer of the Association, and that as soon as the location of this department had been determined, the work of his committee could be easily planned and executed.

At the adjournment of the committee meeting the members of the several sub-committees agreed to elaborate the work of each for a meeting to take place in January. Altogether it may be seen that the Arrangements Committee has the matter well in hand, and that early in the year the plans will be practically complete.

Societies.

COMING MEETING.

Western Surgical and Gynecological Association, St. Joseph, Mo., Dec. 29 and 30.

Philadelphia County Medical Society, North Branch.—This organization, at its recent annual meeting, elected Dr. H. Brooker Mills, chairman, and Dr. Frank C. Hammond, clerk.

Mercer County (Ky.) Medical Society.—Physicians of Mercer County met at Harrodsburg, November 18, and organized a county medical society, with Dr. Henry Plummer, Harrodsburg, president, and Dr. J. M. English, secretary.

Butler County (Mo.) Medical Society.—Ten of the fourteen physicians of Poplar Bluff met in that city, November 14, and organized this society, with Dr. Benjamin C. Jones, president; Dr. DeWitt F. Eskew, vice-president, and Dr. Gervaise L. Johnson, secretary.

South-Eastern Iowa Medical Society.—The thirty-second annual meeting of this society was held in Fairfield, November 20. Dr. George B. Little, Burlington, was elected president and Dr. Carl Stutsman, Burlington, secretary. The next meeting-place is to be Muscatine.

Penobscot County (Me.) Medical Society.—The annual meeting and banquet of this society were held in Bangor, November 18. Dr. Daniel McCann was elected president; Dr. Daniel A. Robinson, vice-president, and Dr. Bertram L. Bryant, secretary and treasurer, all of Bangor.

South Kansas Medical Society.—This society met for its annual session in Wichita, November 18 and 19. Dr. David W. Basham was elected president; Dr. Walter H. Graves, first vice-president; Dr. J. D. Clark, second vice-president; Dr. George K. Purves, secretary, and Dr. Arch D. Jones, treasurer, all of Wichita.

Jefferson County (Ohio) Medical Association.—The physicians of Jefferson County met at Steubenville, November 18, and reorganized this association, with Dr. Enoch Pearce, Steubenville, president; Dr. Hezekiah W. Nelson, Steubenville,

vice-president; Dr. J. Webster Collins, Toronto, secretary, and Dr. Joseph Robertson, Steubenville, treasurer.

New York State Association of Railway Surgeons.—The twelfth annual meeting of this association was held in New York City, November 21. The following officers were elected: President, Dr. Henry Flood, Elmira; vice-president, Dr. Charles J. C. Finn, Hempstead; secretary, Dr. George Chaffee, Brooklyn, and treasurer, Dr. James K. Stockwell, Oswego.

Middle Tennessee Medical Society.—At the annual meeting of this society held in Sparta, November 21, Dr. Rufus E. Fort, Nashville, was elected president; Dr. William B. Young, Bon Air, vice-president, and Dr. Leonard E. Ragsdale, Columbia, secretary and treasurer. Clarksville was selected as the next place of meeting.

CALIFORNIA ACADEMY OF MEDICINE.

Regular Meeting, held Nov. 25, 1902.

Report of a Case of Bubonic Plague.

DR. E. L. WEMPLE (by invitation) reported the case of a white man 33 years of age, married, a clerk in a furnishing store on Third street (near the business center, and a long distance from Chinatown), whom he found, October 27, suffering from backache, stiffness of the limbs, a feeling of anxiety and restlessness and great systemic depression. He refused all food, was nauseated, and had been vomiting. The bowels had moved several times in the three preceding days. The patient dated all his illness from the night of October 24. From this time on he felt a tumor in the right groin, the pain soon became intense, temperature 103.8; pulse, 96; respiration, 30. The tumor felt like a large mass of swollen glands in the femoral region; but as there was another above Poupart's ligament Dr. Wemple was in doubt as to its true nature, and advised that the man be taken to the hospital, where he would remove the mass. At 1:30 p. m. on the same day, October 27, he operated, and, cutting into the tumor, found it to be composed of large lymphatic glands, many of them hemorrhagic and not unlike placental tissue in appearance. There was an edematous condition of the skin and underlying structures from which oozed a glistening serum. He dissected out the glands from the pubic portion of the fascia lata, when he found that the swollen chain extended up into the pelvis. Suspecting that it might be a case of bubonic plague he had the patient quarantined. Smears from the glands showed *Bacillus pestis*, there being a diplococcus infection as well. The diagnosis was bacteriologically confirmed by the inoculation of a guinea-pig, by Dr. M. J. White of the United States Plague Laboratory.

The next day, October 28, the patient was removed to the City and County Hospital and quarantined. During this day 20 c. c. of Yersin's serum were given.

October 29, temperature 102.2 to 102.8; pulse 98 to 125; delirious; pain in back and abdomen; 20 c.c. of Yersin's serum given.

October 30; temperature 102.3 to 104; pulse 108 to 120; respiration 30 to 34; delirious; 40 c.c. of Yersin's serum at 4 p. m. At 11 p. m. 120 c.c. of serum intravenously in each arm; after this 80 c.c. more were given with no effect.

October 31, temperature 104.8; pulse 150; respiration 30; at 8 a. m. temperature 102.4; pulse 110; respiration 30. This latter was after 60 c.c. of serum had been injected and the bowels moved with calomel. Twelve, noon, temperature 104.4; pulse 130; respiration 32; 1/10 of a grain of strychnin was given from 2:30 a. m. to 8 a. m.; 1/10 of a grain of strychnin and 1/30 of atropin were given between 12 and 5 p. m. Unconscious, 5:30 p. m.; 5:50 p. m., temperature 108.4; pulse 170; respiration 43; 20 c.c. of serum given. Death 6:15 p. m.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Stated Meeting, held Sept. 24, 1902.

The President, Dr. T. H. Fenton, in the Chair.

Intussusception in a Child.

DR. MORDECAI PRICE reported a case of "Intussusception in a Child Thirteen Years Old; Operation and Recovery." The patient had suffered with dysentery for five summers, and, when seen, had had dysentery for three months. There was agonizing pain with emaciation. No positive diagnosis was made. On opening the abdomen, much of the ileum was found telescoped into the large bowel throughout almost the whole length of the latter. There was a large mass in the sigmoid at the brim of the pelvis. In the reduction of the condition the ileum was so badly injured that much of it was resected and the small bowel was inserted into the colon by use of a Murphy button five inches above the caput coli. The latter was amputated. Operation was done in July, 1902. Recovery was rapid and complete.

Dr. Price also briefly reported a case of polyhydramnios which he had recently delivered. Distention had been very great; there had been vomiting of blood and great emaciation. The pregnancy was 8½ months advanced. Partial dilatation of the cervix was accomplished with the hand, but the latter could not be inserted into the uterus, because of the intense intra-uterine pressure, until the membranes had been ruptured and a part of the amniotic fluid allowed to escape. The amniotic fluid measured 3½ gallons. Recovery was good.

Symposium on Typhoid Fever—1. Hemorrhage.

DR. R. G. CURTIN read a paper entitled "Hemorrhage in Typhoid Fever." The etiology is hard to explain. He thinks that the more profound the toxemia and the greater the blood changes the deeper will be the sloughing. He had never seen hemorrhage in a patient under 6 years; it is rare in children and when it occurs is rarely fatal.

It should be remembered that a patient may die without external signs of hemorrhage. The amount of blood loss may be estimated by the fall of temperature and depression. Those with most severe symptoms sometimes recover. The associated conditions most serious are renal disease, organic heart disease, hemophilia, tympanitic condition of the abdomen, obstinate diarrhea and vomiting. Treatment is believed to be usually more or less valuable. Following are some of the remedies advised: Ergot; turpentine externally and internally; oid of erigeron when the stomach will bear; mineral and vegetable astringents; ice externally and in the bowel, employed continuously; suprarenal extract the author has used with good effect; elevation of the foot of the bed; ligatures about the limbs. The speaker, in 1893, reported 17 cases with a mortality of 5. More recently he reported a series of 43 cases with a mortality of 23. The recent increase in mortality is ascribed to the cold water treatment. It is believed that the number of cases has also been increased. The effect of the sudden chilling is believed to congest the internal organs and thus increase the liability to hemorrhage. The speaker cited several cases in which he believed the cold bath or sponge to have been the immediate cause of hemorrhage.

2. Pain in Typhoid.

DR. H. B. ALLYN presented a paper: "Significance of Pain in Typhoid Fever." Pain was classified as extra-abdominal, due to hyperesthesia and hysteria, and as abdominal, due to intestinal colic, entero-colitis, cholecystitis and peritonitis either with or without perforation. The speaker dwelt on cholecystitis as a common complication, and believes that recrudescences often ascribed to indigestible food are really not infrequently due to this complication. Clinical cases were cited. Pain indicating perforation of the bowel is most serious. Tenderness and muscular rigidity are usual symptoms of this condition, but pain, often in the right lower quadrant of the abdomen, is the only constant symptom. Confidence was expressed in the value of the frequent skilful blood-counts regarding leucocytosis, especially as helping to diagnose complications. Pain and tenderness are not necessary accompaniments of typhoid fever, but should be regarded as danger signals.

3. Operation in Typhoid Perforation.

DR. R. G. LE CONTE advocated prompt operation following diagnosis of perforation. The peritonitis of typhoid perforation is much more rapid and widespread than that of appendicular perforation. Fatal result from operation may usually be attributed to one of two causes, namely, delay in operating, or surgical errors of judgment or technic. To prevent delay in operation, three things are essential: first, Osler's advice

must be followed and all our past cases of perforation carefully studied, that light may be thrown on the early diagnosis of this condition; second, in a hospital, consent for operation should habitually be obtained for all cases of typhoid fever; and third, the surgeon should be called at once in probable cases. It is too late when the diagnosis is made certain by signs of peritonitis.

Surgical errors of judgment and technic are discussed under four headings: 1. Shock; immediate operation is advised even in profound shock. 2. Incision is recommended in the right semilunar line as 85 to 90 per cent. of perforations will thus be exposed. 3. Treatment of the lesion. Where simple closure is possible, interrupted Lembert mattress sutures are advised. When closure is not practicable walling off the infected area by gauze is advocated. Resection of the bowel or formation of an artificial anus are methods for exceptional cases. Sometimes a single large opening may be plugged with a piece of omentum. 4. Peritoneal toilet and drainage. When peritoneal infection is limited to the right lower quadrant of the abdomen, it is recommended that the infected coils of intestine be brought outside of the abdomen and cleansed with salt solution and gauze sponges, while the cavity within is sponged dry without flushing, and then free drainage assured with gauze strips and a tube leading to the pelvis. If, however, the peritonitis is extensive or universal, a supplemental median incision should be made, permitting considerable evisceration and copious douching, followed by free drainage. The patient's head should be maintained elevated, so that the fluid may gravitate to the pelvis, the least absorbable part of the peritoneum and most readily drained. The fact was cited that the average typhoid patient stands a short operation well, but that prolonged operation is attended with grave risks. Therefore, the simplest and shortest surgical procedure that is consistent with recovery should always be employed.

4. Feeding in Typhoid.

DR. WM. EGBERT ROBERTSON believes that the dietetic management of typhoid fever has been given too little attention. Very few statistical reports dealing with large numbers of cases have been made. The laboratory work of Pawlow and his pupils in St. Petersburg is of importance. They showed that both a psychical and a chemical secretion of the digestive glands takes place and that the former actually stimulates the latter. So, by tempting the appetite, a variety of food can be given in an effort to stimulate the desire for food; for food taken willingly, or especially with pleasure, is more apt to be digested and assimilated than when a food repugnant to the patient is forced on him. A fairly large postmortem experience on the part of the speaker has shown him that, no matter what the diet, except milk, the small bowel always contains liquid feces only, and that formed material is found only in the colon. When milk alone is allowed, or when it constitutes the bulk of the food, it is often found in putty-like masses all along the alimentary canal. Even when milk is well taken and assimilated, the wasting and exhaustion are pronounced, while in those well fed, this condition is usually absent. In fact, in well-fed cases, the condition which gave the disease its name is almost totally wanting, and convalescence is short. Of course, we can not expect to shorten the febrile period, but the time of total disability can be materially shortened. We have no remedy for the disease, and all our efforts must be directed toward the dietetic and hygienic management.

While he would not advocate a full diet, the following can be administered, not only without fear of harm, but with beneficial results: Eggs, raw or cooked, cereals, bread and butter, salad, well-cooked spinach, potatoes, macaroni, soups, gelatin, jellies, custards, all beverages such as tea, coffee, chocolate, etc., ice cream, and chicken. On such a diet the patient is able to combat the wasting, the liability to complications is lessened, and convalescence is shortened. Of course, in gravely toxic cases and to the comatose, only liquid food, if any, can be given.

Discussion on Typhoid Fever.

DR. G. G. DAVIS referred to the possible independent onset of appendicitis in typhoid. A plea was made for the support of the surgeon by the physician in doing early operation in perforation.

DR. HOBART A. HARE said he could not conceive how any ordinary styptic remedies can reach the seat of hemorrhage. He is convinced that Nature is always the chief factor in the arrest of such hemorrhage. Monsel's salt enclosed in several layers of capsules, he believes the only possible efficient remedy of this class. Exceptions were taken to those who believe in assuming chances in operating when perforation can not be positively diagnosed. Cases were mentioned in which operation being refused, recovery showed either a walling off of infection, or that no perforation had occurred. Operation in such cases may have proved fatal. The speaker has seen patients early in typhoid with all the symptoms of appendicitis.

As to feeding, the speaker expressed himself in favor of a more liberal diet than is often used. He believes in excluding meats and meat broths because they are good culture media, but favors giving soft eggs and strained thin starches, with some starch digestive ferment.

DR. MORDECAI PRICE expressed belief in the easy differential diagnosis of appendicitis and typhoid fever. Gangrenous appendicitis is the only variety simulating typhoid fever and it is rapid in onset. He believes in the median incision in operating for perforation, and believes in washing the peritoneal cavity with plain water, not with salt solution.

DR. JOHN H. GIBBON urged early operation, because general peritonitis means fatality. Of 11 cases operated on at the Pennsylvania Hospital, 4 had recovered.

DR. B. F. STAHL favors granting the demand which typhoid patients make for a variety of food, giving especially meat foods or starches. He likes sterile meat broths, especially one made at 167 F. or less, to which hydrochloric acid is added. He advises the use of several of the limitless variety of ways of preparing milk.

DR. WM. L. RODMAN considers hemorrhage as a surgical condition. Following surgical principles, he believes in the intestinal injection of water at 110 to 115 F. This may control hemorrhage; it at least combats shock. Rarely, he believes, is there a spontaneous cure following perforation, whereas by operation perhaps 25 per cent. can be saved. A certain parallelism was pointed out between the condition of typhoid perforation and gunshot wound of the intestines—the two conditions demanding similar treatment. The speaker coincides mostly with the views of Dr. Le Conte, except that he believes in flushing the infected peritoneum rather than wiping it out.

DRS. CURTIN, ALLYN, ROBERTSON and LE CONTE closed with very brief remarks, the latter explaining that, if, in operating for perforation, he finds general peritonitis, he flushes the cavity freely; if only a few coils of intestine are infected, having drawn such coils outside the abdomen, he flushes them, afterward returning them, and always providing for free drainage.

NEW YORK COUNTY MEDICAL ASSOCIATION.

Stated Meeting, held Nov. 17, 1902.

The President, Dr. Alexander Lambert, in the Chair.

Unscientific and Careless Prescribing; Secret and Proprietary Remedies.

DR. HARRY R. PURDY called attention to many common errors in prescribing, occurring even with physicians who were capable and well-informed on other matters. He could only account for this on the ground that our medical schools had neglected to give proper instruction in pharmacy and pharmacology. There had been some improvement, but there was still room for much more, the so-called courses in these branches being wholly inadequate for the needs of the modern physician. The speaker inveighed against the increasing tendency for physicians to do their own dispensing, claiming that it led to unscientific and undignified prescribing, and that many of the tablets employed contained inferior drugs or those which by reason of age had largely lost their potency. He characterized those physicians who prescribed patent medicines as self-confessed incompetents and violators of the Code of Ethics.

DISCUSSION.

DR. E. ELIOT HARRIS took issue with the author in the classing together of patent medicines and proprietary medicines,

maintaining that, at the present time, a patent medicine is one, the working formula of which has been filed with the patent office. This formula is not a fake, but will enable any competent pharmaceutic chemist to reproduce the medicine. Proprietary medicines are essentially secret preparations, although the manufacturers of some of them will state the ingredients, though refusing to divulge the particular mode of manufacture.

DR. FREDERICK HOLME WIGGIN reinforced the position taken by the last speaker, and called attention to the fact that the New York State Medical Association is making an honest effort to keep the advertising columns of its publications free from objectionable matter by living up to the distinctions just laid down. He has not found the tablet medicines inert or unreliable. They are certainly useful in that they enable the physician to properly control the prescribed medication.

DR. GEORGE D. STEWART saw no occasion to take a pessimistic view, while admitting the need of a more liberal education in pharmacology. The older physician, who had not had the advantage of such instruction, should narrow his materia medica down to a few drugs, the nature and actions of which he knew most thoroughly.

MR. THOMAS J. KEENAN, speaking for the pharmacists, said that the latter view with alarm the growing tendency among physicians to prescribe proprietary articles. That there is such a tendency was well shown by taking at random, as he had done, 50 prescriptions from the files of a drug store, for the year 1882, and a similar number for 1901. Of the first fifty, 48 were found to be for official preparations; of the second fifty, no less than 41 were for proprietary articles.

DR. JAMES J. WALSH gave a number of examples of the danger arising from recommending to the laity in an informal way various remedies.

DR. E. MAYER was disposed to think that the pharmacists themselves were largely to blame for the present attitude of the profession toward prescriptions; in any case, one should carefully distinguish between elegant and ethical pharmaceutic preparations and those made only for money-making.

DR. E. V. DELPHEY spoke at length of many well-known proprietary preparations, mentioning them by name, and pointing out how little they had to commend them to the careful and conscientious physician.

MR. JAMES TAYLOR LEWIS remarked that if the formula of a patent medicine on file in the patent office proved not to be the correct working formula of that medicine, the patent on the same was void.

The Venous Hum in Relation to Blood Count.

DR. C. N. B. CAMAC reported 22 cases of anemia, in 21 of which the cervical bruit was audible. He said that while it was generally assumed that this bruit arose from a diminution in the caliber of the vessel and the consequent formation of "a fluid vein," certain recent experiments of Potain gave renewed emphasis to the older theory based on the thinness of the blood. The cases observed by the author were divided into the following groups: 1. Those in which there was a cervical bruit and hemoglobin percentage of 90 or over. 2. Those in which this bruit was associated with a hemoglobin percentage of 75 to 90 per cent. 3. Those in which the bruit was present with a percentage of hemoglobin of less than 75, and 4, cases in which there was no cervical bruit, and the hemoglobin percentage was below 75. Of the 22 cases, 21 had the cervical bruit. There were 15 cases belonging to the first, 2 to the second and 6 to the third group.

CHICAGO MEDICAL SOCIETY.

Regular Meeting, held Nov. 19, 1902.

The President, Dr. Wm. A. Evans, in the Chair.

Case of Ventrofixation, Pregnancy, Inversion of the Uterus, Death and Autopsy.

DRS. WM. E. HOLLAND and BYRON ROBINSON presented jointly a case of ventrofixation, followed in two years by pregnancy. At full term there was a short normal labor and delivery. Death occurred three and a half hours postpartum. The autopsy revealed complete inversion of the uterus. The uterine circulation was injected *in situ* with red lead, the uterus removed, and an *x*-ray of the specimen secured. The authors presented observations and deductions concerning the relation of the ventrofixation to inversion of the uterus.

DISCUSSION.

DR. CHARLES E. PADDOCK propounded the question: "Why is it we find so many cases of inversion of the uterus now, when there were so few formerly?" He believes it is due largely to a misunderstanding of the Credé treatment of the third stage of labor.

DR. RUDOLPH W. HOLMES said that some years ago he presented a paper on the "Etiology of Inversion of the Uterus." He collected at that time 830 cases, 75 per cent. of them being due to spontaneous causes; 25 per cent. were due to the Credé method and to traction on the cord. He thinks abdominal pressure is the direct cause of the inversion in the larger proportion of cases.

DR. A. MCDERMID said he performed the operation of ventrofixation on a patient some three years and a half ago. In listening to the report, he thought it was believed atrophy had occurred, owing to the method of fixation adopted, and that the atrophic band had inverted the uterus. When the uterus is fixed by any method to the abdominal wall, the anterior wall of the uterus during gestation, not being allowed to expand, becomes thick and dense, while the posterior wall becomes attenuated, and he thinks it is rare that the posterior aspect of the fundus is so attenuated that it is liable to cause inversion. The speaker had used the modified method of fixation of Martin of this city.

DR. C. S. BACON said it is hardly fair to attribute the inversion to the ventrofixation, and gave his reasons for so thinking.

DR. FRANKLIN H. MARTIN described a method of ventrofixation which he had used in 173 cases. Of this number only 30 were women who could bear children, and of these 30, 2 had children within one year to two years, after the fixation had been made. These women went on to term, were confined in a normal manner, and made no complaint. In each of these cases he had examined the uterus afterward and found it suspended.

DR. C. W. BARRETT thinks that ventrosuspension or fixation should be reserved for those cases in whom pregnancy may not occur afterward. He believes the weight of clinical evidence is tending that way.

The Gravity of Bronchitis in Elderly Men and the Safety Valve Action of Relative Tricuspid Insufficiency.

DR. ROBERT H. BABCOCK reported a case and drew the following conclusions:

1. Bronchitis in elderly, although robust, men may readily become chronic. Presuming on their previously good health and vigor, they think they can easily throw off their colds, and hence are apt to ignore medical aid until after the bronchitis has become settled and obstinate.

2. The cardio-vascular degenerations so often present and unrecognized in elderly men increase the tendency of bronchitis to become chronic. This is because the stiffened arteries and chronic myocarditis, even though the heart remains potentially equal to the demands of everyday life, tends to the production of pulmonary and bronchial congestion, which, when bronchitis once sets in, renders it less amenable to ordinary treatment. Moreover, the physician who may, perchance, be consulted is apt to overlook the influence of cardio-vascular changes, and contents himself with prescribing expectorants, whereas he should at the same time lessen the congestion by a brisk calomel cathartic. He should also, in many cases, inhibit exercise and attention to business, that the heart may be relieved of unnecessary strain.

3. Another element of danger in the bronchitis of elderly men is pneumonia. In most cases the bronchitis predisposes to a pneumonia, which may develop after the lapse of weeks or months, as in the case narrated. There is, however, the possibility that the bronchitis, which sets in abruptly and severely, may be but an attendant or manifestation of pneumococcus infection, and may obscure the signs of pneumonia when this is lobular.

4. A fourth danger lies in the effect of the bronchitis on the heart. Chronic myocarditis develops so insidiously that one may not always be able to detect it, and can not forsee how little extra strain may be required to seriously impair its potential strength.

Even should pneumonia not ensue, the mechanical strain of the bronchitis, especially if it leads to atelectasis and emphysema, and of repeated violent attacks of coughing, is capable of seriously damaging the degenerated right ventricle, the dilatation of which aggravates the already existing congestion.

5. Should such dilatation lead to relative tricuspid insufficiency, this is not to be regarded as a sign of danger *per se*, since it is in reality a safety valve which for a time protects the ventricle from disastrous over-distention. The tricuspid regurgitation is a criterion of the degree of mechanical strain to which the ventricle is subjected.

6. Such safety valve action not only furnishes a brief respite to the patient from the death threatening him, but affords to the physician a little longer interval in which to battle for victory, while it, at the same time, indicates the necessity of relieving dangerous congestion by cathartics, possibly also venesection, and cardiac tonics.

Circular Insanity.

DR. RICHARD DEWEY reported a case of circular insanity which he had studied clinically, differentially and medico-legally, and which will be published in THE JOURNAL later.

Ankylostoma Duodenale.

DR. JOSEPH A. CAPPS reported a case of ankylostoma duodenale. He gave the life-history of the parasite, described the modes of infection, and demonstrated specimens illustrating different phases of development, and then discussed the diagnosis and treatment.

Therapeutics.

[It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.]

Acne.

Dr. Leredde, in *Rev. de Ther.*, recommends, in the treatment of the various forms of acne, and the lichens, employing methods that will produce exfoliation of the epidermis and the mucous layer with subsequent desquamation, which results in carrying off the pathologic products. To accomplish this purpose, he employs strong alkaline soaps, resorcin, salicylic acid and beta-naphthol in the following combinations:

R.	Zinci oxidi	3iiss	10
	Resorcini	3x	40
	Adipis benzoin.	℥i	30

M. Sig.: Apply to the face once a week after washing the face with soap and water; or:

R.	Beta-naphthol	3iiss	10
	Sulphuris precip.	℥iss	45
	Saponis viridis	3vi	24
	Petrolati	3vi	24

M. Sig.: Apply locally; or:

R.	Acidi salicylici		
	Beta-naphthol, āā	gr. lxxv	5
	Resorcin	3iiss	10
	Sulphuris		
	Amyli, āā	3vi	24
	Saponis viridis	3iv	16
	Petrolati	3vi	24

M. Sig.: Apply locally.

Or, in the form of a lotion as follows:

R.	Tinct. saponis viridis (20 per cent.)	3x	40
	Resorcin	℥i	4
	Sulph. precip.	3iiss	10

M. Sig.: Apply locally once a day for three days.

The author states that the paste, whichever one is used, may be allowed to remain in place for fifteen minutes in the beginning, gradually increased to thirty-five minutes in order to gauge the reactive power of the skin. The foregoing lotion may be applied, as stated, daily for a few days.

The resulting inflammatory reaction may be tempered by means of the following salve:

R.	Zinci oxidi		
	Petrolati, āā	3iiss	10
	Adipis lanæ	℥ss	15

M. Sig.: Apply locally.

Dressing for Wounds, Especially Bullet Wounds.

Paul von Bruns, professor of surgery in Tübingen Univ., recommends in the treatment of wounds, especially bullet wounds, a salve containing xeroform, combined as follows:

R.	Xeroform	3iiss	10
	Mucil. acaciæ		
	Glycerini, āā	3v	20

M. Sig.: Apply locally as a dressing, substituting iodoform and salicylic acid powders.

Xeroform is the tribromophenol of bismuth. It is an odorless, tasteless, yellowish-green powder, employed externally as an antiseptic surgical dressing.

Herpes Zoster.

The object of treatment in herpes zoster, according to an abstract in *Med. News*, is to cure the vesicles, to prevent the suppuration and to quiet the neuralgic pains. The following combinations are recommended for local application:

R.	Acidi tannici	gr. vii	45
	Olei olivæ	3v	20
	Ceræ flavæ	3iiss	10

M. Ft. unguentum. Sig.: Apply locally; or:

R.	Acidi borici	gr. xl	2 65
	Cocainæ hyd.	gr. viii	50
	Petrolati	3vss	22

M. Sig.: To be applied locally.

If gangrene or suppuration should make its appearance, wet compresses should be applied, followed by powdering with iodol or iodoform.

For the pain one may employ morphin, chloral, belladonna and quinin hydrobromate.

The following is recommended by Shoemaker:

R.	Ferri pyrophos.	gr. xxx	2
	Acidi arsenosi	gr. i	06
	Quin. sulph.	gr. xxx	2

M. Ft. pil. No. 30. Sig.: One pill three times a day; or:

R.	Tinct. nucis vom.		
	Tinct. gelsemii, āā	m. lxxv	5

M. Sig.: From five to ten drops four times a day.

Diphtheria.

Patterson, in *South. Med. Jour.*, recommends the following in the treatment of diphtheria:

R.	Pot. chloratis	gr. xv	1
	Acidi muriatici dil.	3i	4
	Tinct. ferri chloridi	3iss	6
	Aq. destil.	℥vi	180

M. Sig.: Two tablespoonfuls in water every hour for adults and proportionately less for children.

Dysmenorrhea.

The *Med. Press and Circular* states that the inefficacy of the treatment of dysmenorrhea is shown by the multiplicity of remedies recommended. The statement is made, however, that beneficial results have been obtained from the administration of thyroid extract in dysmenorrhea owing to the intimate relationship which exists between the utero-ovarian zone and the thyroid gland. It is stated that Dr. Stinson of San Francisco has been successful in 80 per cent. of his cases. He administers a grain of the dried extract three times a day for one or two days preceding the menstruation and doubles the dose during the period.

Fisher, in an abstract in *Amer. Med.*, calls attention to the intimate association between the genital apparatus and the thyroid gland. He states that occurrences which influence the genital tract, such as puberty, pregnancy, and uterine fibroids, very frequently cause enlargement of the thyroid gland. He

also notes that deficiency of the normal thyroid secretion is often accompanied by atrophic changes in the genital apparatus. Consequently, it seems from the foregoing statements that thyroid extract is deserving of a place in the treatment of dysmenorrhea.

Edema of the Glottis.

The following combination is recommended by *Le Prog. Méd.* in the treatment of edema of the glottis:

℞ Aluminis
Acidi tannici, āā ..... gr. lxxv 5
Ext. krameriæ ..... ʒiiss 10
Aquæ, q. s. ad. ..... Oi 500

M. Sig.: To be sprayed into the throat by means of an atomizer five or six times a day.

Appendicitis.

T. R. Brunton, according to the *Med. News*, recommends the use of sodium salicylate and belladonna in large doses in the treatment of appendicitis. He recommends sodium salicylate in fifteen or twenty grain doses, alternating with ten or fifteen drops of the tincture of belladonna, every two hours for a limited number of doses. It is not wise to mix them because it is important to stop their administration just as soon as the symptoms of intolerance arise or at any rate to decrease the size of the dose.

Turpentine in Scarlet Fever.

Tobeitz, in an article on the pathology and treatment of scarlet fever, according to *Archiv f. Kinder.*, recommends the use of turpentine in this disease. He states that instead of its producing an inflammatory condition of the kidneys it cures albuminuria and prevents nephritis. He uses it in the form of an injection hypodermically, given in fifteen minim doses (1.00) injected into the outer aspects of the thigh, followed two days later by twenty drops given internally in capsule, on sugar or in the form of an emulsion.

Acute Alcoholism.

The insomnia and intense nervousness, according to an abstract in *Ther. Monthly*, which frequently accompany acute alcoholism, should be corrected by promoting free elimination from the bowels, skin and kidneys. A brisk laxative in the form of Hunyadi water, seidlitz powder or magnesium citrate should be given, also a turkish bath, if not too depressing. Sodium bromid should be preferably used as a sedative and hypnotic. The author does not favor the indiscriminate use of bromids, chiefly because of the danger of producing gastric disturbance.

A mixture similar to the following is recommended:

℞ Chloralis hydratis
Sodii bromidi, āā ..... gr. xv 1
Tinct. capsici ..... m. x 65
Aq. menth. pip. ..... ʒss 15

M. Sig.: At one dose.

The author, however, prefers paraldehyd as a hypnotic combined as follows:

℞ Paraldehyd ..... ʒss-ʒi 2-4
Olei olivæ ..... ʒss 15

M. Sig.: At one dose to produce sleep.

Paraldehyd is said to produce sound, refreshing sleep, with no depressant after-effects. Food should be withheld until the bowels move freely.

Chorea.

The following combinations are serviceable, according to Yeo's *Man. of Ther.*, in the treatment of chorea:

ZINC OXID.

℞ Zinci oxidi ..... gr. iii-vi 20-40
Sacch. albi ..... gr. lxxv 5

M. Ft. chart. No. i. Sig.: One such powder three times a day; or:

SODIUM ARSENATE.

℞ Sodii arsenatis ..... gr. iss 09
Acidi carbol. ..... m. iii 20
Aquæ destil. ..... ʒiiss 10

M. Ft. solutio. Sig.: Five minims as an initial dose and repeat, according to age.

ASAFETIDA.

℞ Asafetidæ
Ext. valerianæ
Zinci oxidi
Castori pulv., āā ..... gr. xx 1 30
Ext. belladonnæ ..... gr. ii 12

M. Ft. pil. No. xx. Sig.: One or two night and morning.

IRON AND ARSENIC.

℞ Tinct. ferri chloridi ..... ʒii 8
Liquoris arsenicalis ..... ʒiii 12
Glycerini ..... ʒi 30
Aquæ chloroformi q. s. ad ..... ʒiv 120

M. Sig.: One small teaspoonful of water after food three times a day.

QUININ, IRON AND ARSENIC.

℞ Ferri reducti ..... gr. i-iii 06-20
Quin. sulph. ..... gr. ii-v 12-30
Acidi arsenosi ..... gr. 1/50-1/30 0012-0020

M. Sig.: To be taken in pill or capsule three times a day.

Dr. Otto Maier, in *Ped.*, recommends the following in the treatment of chorea: Rest in bed, cold sponge baths twice a day, light nutritious diet, no excitement of any kind, and the following to be taken internally:

℞ Pot. bromidi ..... ʒi 4
Sol. pot. arsenitis ..... ʒii 8
Syr. simp. ..... ʒss 15
Aq. fontis q. s. ad ..... ʒiii 90

M. Sig.: One teaspoonful three times a day well diluted in water.

Acute Nephritis.

The following is recommended by *Le Nord Med.* in the treatment of acute nephritis:

Absolute rest in bed, the legs wrapped in cotton covered with oil silk; exclusive milk diet; a glass of milk and vichy water every two hours. Hot drinks to produce sweating, especially the infusion of juniper berries. Give saline purgatives to promote excretion by the intestine and the following to be taken internally:

℞ Cinchonæ sulph. ..... gr. ii 12
Benzonaphthol ..... gr. v 30

M. Sig.: One such cachet to be taken three times a day.

Medicolegal.

Property Not Damaged by Location of Pesthouse.—In the case of Barret vs. the City and County of Henderson, an action brought to recover damages for the alleged depreciation of certain property by the location of a pesthouse near same, the Court of Appeals of Kentucky affirms a judgment in favor of the city and county. On the trial it was proved by a number of witnesses that the value of the property was decreased by the location of the pesthouse fully $20 to $30 an acre. The city and county then introduced one witness, who said he had known the land all his life, and it was just as valuable then as it was before the pesthouse was built. Two other of their witnesses were of the same opinion, but another two thought the land had been damaged. The only question made on the appeal was, in substance, that the verdict in favor of the city and county was palpably against the evidence. The proof showed that the nearest pesthouse to the party's line was 474 feet from it, and something over 1,250 feet from his house. The other pesthouses were still further off. The proof also showed that the contagion of smallpox could not be carried through the air more than 100 or 200 feet. There was some proof that it might be carried further, but the great weight of the evidence was otherwise, and this was confirmed by the fact that no contagion had yet resulted from these pesthouses. Under these circumstances, all the court has to say is that a jury, selected as juries ordinarily are, when the facts were proven before them, were peculiarly qualified to pass on a question of this character; for as practical men they could form their own judgments on the facts, and the court does not think that it ought to disturb their finding.

Salary Only Recoverable by Health Officer.—As the Supreme Court of Mississippi describes it, the case of Yandell vs. Madison County was brought by a physician, as health officer of the county, to recover upon a *quantum meruit*, or as much as he deserved, namely, the sum of $892, for medical services rendered to residents of that county. To the several counts, or different statements of his claim, three in number, all of like character, he attached a bill of particulars, containing about 93 items, one of which items, which will serve to illustrate all the others, was as follows: "1901, Jan. 14. To visit Jesse Samuel (smallpox), $15.00." To his declaration, or entire pleading, a demurrer was sustained, when he filed an amended count in *quantum meruit* also, but for $800. In the amended declaration no mention was made of the services performed, but it alleged that for the year 1900 his predecessor in office had received at the rate of $500 per annum, which had been fixed at that sum by the board of supervisors, and that his (Yandell's) services were worth more than the services of his predecessor. His amended declaration further alleged that the board for the year 1901 had fixed the health officer's salary at $100 per annum, but it made no use of that fact except to ignore it. In truth, all the counts ignored the fact that his compensation was a salary, to be fixed by the board, and sought to recover on a *quantum meruit* for special services to sick persons within the county. The court thinks that a demurrer was rightly sustained to all the counts, because the physician could claim against the county his salary only, whatever that might be; and for such recovery neither of his counts was a suitable pleading.

Skill Required of Physician—In Isolated Locality.—The Court of Appeals of Kentucky finds reversible error in certain instructions given the jury in the malpractice case of Burke vs. Foster, which the trial court decided in favor of the physician. The negligence charged was failure to discover and treat a dislocation of the arm at the shoulder joint. The parties lived in a somewhat isolated village, in a rural community, on the Kentucky river, but not on any railroad line. The number of physicians residing and practicing in that "vicinity" was not shown, but presumably they were not numerous. By the instructions referred to, the skill, attention, and prudence required of the physician were restricted to such as were exercised by "ordinarily skilful and prudent physicians and surgeons in that vicinity in treating a like injury." The Court of Appeals admits that it has held that a physician could not complain of such instructions, as, without saying more, they were as favorable to him as he was entitled to. It also says that there are some cases which have limited the physician's liabilities by this standard. Yet, so far as Kentucky is concerned, it is not aware of any reported case where it has approved of this doctrine. It says that it may be that in any given community—a rural one, sparsely inhabited—there may be only one or two physicians, and they may each be utterly incompetent, and be what is popularly termed a "quack." Should the law permit such a one to hold himself out as a member of this learned profession, and invite the confidence and reliance of those suffering from serious injuries and ailments, so as to engage his services, and then, though he is a mere bungler and an ignoramus, an empiric of the lowest degree, allow him to escape liability for his negligence and lack of skill on the plea that he and his associates in the profession in that community are all of a kind, and none of them have either sense, care or capacity? The mere statement of the proposition would seem to carry with it its answer. On the other hand, it must be recognized that the most efficient and talented in the profession generally, and very naturally, seek better and more lucrative fields for employment; that those living in a sparsely settled neighborhood will not have, in any probability, the experience, the opportunity for acquiring skill by practice in such cases, that comes to the practitioner of medicine and surgery in the city. It generally follows, then, that the practitioners in rural localities have not the same high degree of skill, knowledge or education that may be found in large cities and populous communities. As the physician engages to bring to bear on the case only such skill and care as is ordinarily practiced by others of the same profession in like situation, his liability should be measured by that standard. Wherefore, the court thinks that the sounder rule is, not that the physician's skill and degree of attention should be measured by those of his community, but by such as is exercised generally by physicians of ordinary care and skill in similar communities. Furthermore, the court holds one of the instructions erroneous because it precluded a recovery, whatever the physician's negligence or lack of skill, if the result was as good as was usually obtained in like cases similarly situated. It says that it is known of all men that many cases of injury or illness are recovered from without any medical attention, while many others of the same kind do not recover, although apparently the best medical attention is given. What the proportions are might be impossible to determine. It is equally well known that two or more cases of apparent similarity, treated by the same treatment, and, indeed, by the same physician, may, and often do, have directly opposite results as to recovery. The court thinks, when a physician undertakes to give his attention, care, and skill to a given case of injury or disease, the patient is entitled to the chance for the better results that are supposed to come from such treatment, and as are recorded by the science of his profession to a proper treatment. That the patient might have died in spite of the treatment, or that "ordinarily" they did die in such cases (as formerly in cases of cholera, smallpox, etc.), is no excuse to the physician who neglects to give his patient the benefit of the chance involved in a proper treatment of his case. That no treatment would avail; or that ordinarily careful treatment would not, might be shown, if the case so warranted. In this case, the patient was entitled to an ordinarily careful and thorough examination of his injuries, such as the circumstances attending their infliction, the condition of the patient, and the surgeon's opportunities for proper examination suggested and allowed. If the dislocation was discoverable by such examination, and if the physician felt that because of lack of appliances or lack of experience he was unable to treat any peculiar feature of the injury, it was at least the right of the injured man to be apprised of his condition, that he might call in more skilled attention if he desired.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

New York Medical Journal, November 22.

1 *Ten Instructive Cases for the General Practitioner in Medicine, with Remarks upon the Detection and Relief of Eye strain. Ambrose L. Ranney.
2 *The Prevention of Intestinal Diseases in Infants During the Summer. Charles G. Kerley and John L. Hughes.
3 *Rubber Gloves. Robert T. Morris.
4 A Special Type of Crookes' Tube for Therapeutic Applications of Roentgen Rays to the Cervix of the Uterus. E. W. Caldwell.
5 Three Cases of Shark Bite. J. A. Guthrie.

Medical Record (N. Y.), November 22.

6 *Repeated Ectopic Gestation. Brooks H. Wells.
7 *Typhoid Fever, Symptomatology, and Clinical Diagnosis. Charles E. Nammack.
8 *Monoplegia Disturbances of Sensibility in Cortical Paralysis. Sol G. Kahn.
9 Clinical Report on the Use of Argyrol (Silver Vitelline) in Diseases of the Nose, Throat and Ear. M. D. Lederman.
10 Relation of Consciousness to the Nervous System. Axel E. Gibson.
11 A Case of Multilocular Double Ovarian Cyst, Complicated with Carcinoma of the Descending Colon; Operation; Recovery. J. B. Boucher.

American Medicine (Philadelphia), November 22.

12 *The Surgical Treatment of Epilepsy. Roswell Park.
13 *The Pathology of Katabolism in Relation to the Etiology and Pathology of Cancer and Allied States. (To be continued.) Homer Wakefield.
14 A Nasopharyngeal Tumor, with Exhibition of Patient. G. Hudson Makuen.
15 *Remarks on Verbal Amnesia, Apropos of a Case of Sensory Aphasia. Alfred Gordon.
16 *Adenocarcinoma of the Male Breast. Frank C. Hammond.
17 *A Modification of Gersuny's Method of Paraffin Injections in So-called Saddle-Nose, to Prevent Disturbance of Muscular Action of the Nose. Francis Alter.
18 Venereal Diseases Among the Filipinos. E. F. Robinson.

Medical News (N. Y.), November 22.

19 *Obsessions: Fixed Ideas; Indecisions; Imperative Conceptions; Abulias; Phobias. Theodore Diller.
20 *The Significance of the Terms Acute and Chronic. Allen J. Smith.

21 *Neurasthenia. Joseph M. Aikin.
22 *A Study of Sex-Production in Man. Louis Kolipinski.
23 *General Remarks on Nasal Obstruction. John A. Donovan.

Boston Medical and Surgical Journal, November 20.

24 *Barber-Surgeons. (Concluded.) Frederic W. Taylor.
25 *Tetany in Gastric Disorders. Lawrence W. Strong.
26 *Notes on the Diagnosis and Treatment of Early Miscarriage. L. V. Friedman.

Philadelphia Medical Journal, November 22.

27 *Amputation Through the Shoulder-Joint as a Routine Procedure in Axillary Carcinoma. Secondary to Mammary Tumors. John B. Roberts.
28 *The Radical Cure of Hernia, with Report and Analysis of 116 Cases. Frank Martin.
29 Models for Demonstrating the Elementary Physiology of Vision. B. Alex. Randall.
30 *A Case of Exophthalmic Goiter Presenting Some Unusual Features. Charles S. Potts.
31 *What Class of Pulmonary Patients Do Well in Colorado? W. A. Campbell.
32 *Mental Symptoms of Neurasthenia. W. K. Walker.

Cincinnati Lancet-Clinic, November 22.

33 Compound Fractures of the Long Bones, with Special Reference to Treatment. W. U. Cole.
34 The Ethics of the Medical Profession. Dudley S. Reynolds.
35 A New Method for Locating Foreign Bodies by Means of the X-Rays. S. P. Kramer.
36 Surgery of Prostate, Pancreas, and Diaphragm. (Continued.) B. Merrill Ricketts.

St. Louis Medical Review, November 15.

37 Causes of Appendicitis. T. C. Witherspoon.

Northwestern Lancet (Minneapolis), November 15.

38 The X-Ray in Therapeutics. W. P. Spring.
39 The Minnesota State Board of Health: Its Work and History. H. M. Bracken.
40 St. Barnabas Clinic. C. H. Hunter.

Western Medical Review (Lincoln, Neb.), November 15.

41 An Experience with Some Atypical Cases of Appendix Disease. W. O. Bridges.
42 Some Cases of Appendicitis—Operative and Otherwise. A. B. Anderson.
43 *Schleich Anesthesia. R. M. Stone.
44 The Management of Normal Labor, with Additional Remarks Regarding the Obstetrical Forceps. J. J. Cameron.

Journal of Medicine and Science (Portland, Me.), November.

45 Analysis of the Stomach Contents. Joseph P. Bodge.
46 *Septicemia and the Curette. H. Plympton.
47 *The Relation of Obstetrics to Gynecology. Seth C. Gordon.

University of Pennsylvania Medical Bulletin (Philadelphia), November.

48 *Bubonic Plague: Its Nature, Mode of Spread, and Clinical Manifestations. Simon Flexner.
49 *The Pathology of Lymphotoxic and Myelotoxic Intoxication. Simon Flexner.
50 The Interaction of the Blood of Cold-Blooded Animals, with Reference to Hemolysis, Agglutination, and Precipitation. Hideyo Noguchi.
51 A Study of Immunization Hemolysins, Agglutinins, Precipitins, and Coagulins in Cold-Blooded Animals. Hideyo Noguchi.
52 *Vaccination and Serum Therapy Against the Bacillus of Dysentery—An Experimental Study. Frederick P. Gay.
53 Leptothrix Infection in Animals. Richard M. Pearce.
54 *Thrombi Composed of Agglutinated Red Blood Corpuscles. Simon Flexner.
55 *The Anti-hemolytic Action of Blood Sera, Milk and Cholesterin upon Agaricin, Saponin, and Tetanolysin, Together with Observations upon the Agglutination of Hardened Red Corpuscles. Hideyo Noguchi.
56 *Study of the Bacteriolytic Serum Complements in Disease: A Contribution to Our Knowledge of Terminal and Other Infections. Warfield T. Longcope.
57 The Constitution of Snake Venom and Snake Sera. Simon Flexner and Hideyo Noguchi.

Vermont Medical Monthly (Burlington), October 25.

58 Modern Treatment of Prostatic Hypertrophy. John B. Wheeler.
59 Some Observations on the Diagnosis of Smallpox. Charles S. Caverly.
60 Some Remarks on Nervous Cough. Elmore Palmer.
61 *The Methods of Using Argyrol. A. C. Barnes.

Archives of Pediatrics (N. Y.), November.

62 *The Management of the Fat Percentage in Feeding Difficult Cases. Thompson S. Westcott.
63 *The Proteids of Milk. Henry D. Chapin.
64 Recurrent Vomiting in Children, with Report of Four Cases. Henry L. K. Shaw.
65 *Bronchitis and Bronchopneumonia in children. E. W. Mitchell.
66 Pneumonia in Children. J. P. Barber.
67 A Case of Congenital Rachitis. Maurice Ostheimer.

Physician and Surgeon (Detroit and Ann Arbor, Mich.), August.

68 The Care of the Consumptive Poor, with Especial Reference to the Establishment of a Consumptive Hospital in Connection with the County Farm. Herbert M. King.
69 Surgical Observations in India. Hal C. Wyman.
70 Puerperal Eclampsia. Herbert E. Randall.
71 *Septicemia and the Curette. Harry Plympton.
72 Antitoxin in the Treatment of Diphtheria. C. C. Clancy.
73 Some Observations on Smallpox. Franklin Bauch.
73½ Modification of Farlow's Tonsil Punch. E. Amberg.

Colorado Medical Journal (Denver), August.

74 Abortions. R. C. Robe.
75 Friedreich's Ataxia. A. I. Hayes.
76 The Treatment of Headache. Bernard Oettinger.
77 Myopia and Its Treatment. W. C. Bane.

Interstate Medical Journal (St. Louis), November.

78 *The Enlargement of the Pelvic Outlet During Labor. Julius Neumann.
79 *Cardiac Dilatation at Puberty. Alfred Friedlander.
80 *Some Studies of the Periodicity of Inebriety. T. D. Crothers.
81 Climatological Features of Plague in Manila. W. J. Calvert.
82 Penetrating Wounds of the Abdomen. H. L. Nietert.

Medical Herald (St. Joseph, Mo.), November.

83 *The Relationship Lues Bears to the Body Politic. S. P. Collings.
84 Presentation of Specimen of Septic Uterus. Palmer Findley.
85 The Use of the Microscope in Examination for Life Insurance. H. Winnett Orr.
86 Aneurism and Thrombosis of the Basilar and Cerebral Arteries—Report of Case. J. M. Mayhew.
87 President's Address, Medical Society of Missouri Valley. Richard C. Moore.

Journal of the Michigan State Medical Society (Detroit), November.

88 *Optimism and Pessimism in Medical Practice. David Inglis.
89 The Value of Plaster Casts for Accurate Case Records and as Aids in the Teaching of the Differential Diagnosis of Abdominal Tumors. Reuben Peterson.
90 *Sequelæ of Ophthalmia Neonatorum. Don M. Campbell.
91 *The Treatment of Typhoid Fever. George Duffield.
92 Aneurism of the Innominate Artery. Louis J. Hirschman.
93 *The Administration of Normal Saline Solution. Alexander M. Campbell.
94 Annual Address of the Retiring President of the Wayne County Medical Society. Samuel Bell.
95 *Abdominal and Pelvic Drainage Relative to Gynecology. O. H. Clark.

Texas Medical Journal (Austin), November.

96 *The Drug Habit: Its Treatment. M. K. Lott.
97 Normal Salt Solution—When to Use It; How to Use It. A. P. Heineck.
98 Adenoids and Hypertrophied Faucial Tonsils, as Portals of Infection—A Plea to the General Practitioner for Their Early Recognition and Removal. P. M. Payne.

Therapeutic Gazette (Detroit, Mich.), November 15.

99 *Retention of Urine, and Its Relief—A Clinical Lecture. John H. Brinton.
100 *Treatment of the Nervous Phenomena in Chronic Nephritis. James M. Anders.
101 *The Action of Strychnin on the Heart, and the Evil of Overdosage. Roland G. Curtin.
102 *Treatment of Puerperal Eclampsia. Henry E. Tuley.
103 *The Treatment of Cases of Nasal Obstruction. Dudley S. Reynolds.

Hot Springs Medical Journal, November.

104 The Study of the Rectum with Reference to the Causation Factors of Obstipation. Louis J. Hirschman.
105 *Septicemia and the Curette. H. Plympton.

Merck's Archives (N. Y.), November.

106 *Thiosinamine in Chronic Otitis Media, Accompanied by Impaired Hearing. Lewis S. Somers.
107 An Index of Diseases, Alphabetically Arranged, with Their Modern Treatment. (Continued.) G. Bjorkman.
108 *Kidney Complications in the Puerperal and Other States. O. Henley Snider.

New England Medical Monthly (Danbury, Conn.), November.

109 Autobiography of the Late J. Milner Fothergill, M.D., London, England. (Continued.)
110 Observations on Anesthesia of the Drum Membrane. George B. McAuliffe.
111 *Septicemia and the Curette. H. Plympton.
112 Thialion. J. D. Ely.
113 The Importance of Modern Methods in the Care and Preservation of Cow's Milk. John T. Howell.
114 Epilepsy and Its Modern Treatment. Ambrose L. Ranney.

Charlotte Medical Journal, November.

115 Public Care and Treatment of Inebriety. T. D. Crothers.
116 Some Phases of Modern Medicine. R. L. Payne.
117 Dependent Drainage in Acute Extensive Intrapelvic and Intraperitoneal Infection in Man by Incising the Perineum, Separating the Rectum from the Prostate and Bladder, and Puncture of the Recto-vesical Pouch of the Peritoneum. Hugh M. Taylor.
118 *Report of Case of Septicemia, as I Felt It Myself. J. C. Newman.
119 A Plea for Mothers and Their Offspring. T. S. Hening.
120 Report of a Case of Secondary Hemorrhage Following Tonsillotomy, Measles. Clarence P. Jones.
121 Some Thoughts Suggested by a Case of Urinary Fistulæ Following a Vaginal Hysterectomy. J. W. Henson.
122 The Relation of Hygiene to Progressive Surgery. Granville P. Conn.
123 The Local Use of Acetate of Aluminium. Southgate Leigh.
123½ Remarks upon Some Indications for Wearing Glasses. John P. Davidson.

Occidental Medical Times (San Francisco), November.

124 *A Rare Anomaly of the Lateral Sinus. George H. Powers.
125 *The Treatment of Carcinoma of the Uterus. D. A. Stapler.
126 Address, San Joaquin Valley Medical Society. J. B. Rosson.

127 *A Clinical Review of Eight Cases of Defective Union in Fractures, with Special Regard to the Prevention of Delayed and Non-Union. R. T. Stratton.
128 Remedies to Heal the Sick. R. O. Phillips.
129 Surgical Treatment of Gallstones. A. W. Morton.
130 Therapeutic Nihilism. W. S. Fowler.
131 *The Use of Hyoscin Hydrobromate in Alcoholism. R. E. Bering.
132 Foreign Body Retained in the Orbit for Ten Years. George H. Powers.

Atlanta Journal-Record of Medicine, November.

133 The Relation of Law to Social and Economic Conditions. F. S. Key Smith.
134 Physical Culture for Children. Ida R. Compton.
135 The State's Duty in Caring for Its Consumptives. J. L. Hiers.
136 *Septicemia and the Curette. H. Plympton.

Texas Medical News (Austin), October.

137 Appendicitis. Robert L. Greene.
138 Smallpox. J. F. Eaves.
139 The Use of X-Rays. Daniel Parker.
140 Burns and Scalds. August Kuhn.

Nashville Journal of Medicine and Surgery, October.

141 *Septicemia and the Curette. H. Plympton.

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1. **Eye Strain.**—Ranney reports cases of mental failure, epilepsy, chorea, paralysis, deformity, monoplegia, diabetes, neuralgia, nervous prostration and wry neck cured by correcting eye muscle errors. He claims that each case was scientifically investigated, and while several of them justified the diagnosis of organic brain disease, complete relief by operative procedures and glasses showed the importance of eye strain in their causation. He thinks they would show to an unprejudiced mind the necessity of making careful ocular examinations in all such cases.

2. **Intestinal Diseases in Infants.**—Kerley and Hughes give the results of treatment of the out-patients, which they find more amenable to drugs than has generally been held. Their methods are to discontinue milk in all cases of vomiting or diarrhea, regardless of the nature of the attack, whether mild or severe, and substitute a carbohydrate diet. They find that egg albumin water is dangerous as a milk substitute and also beef juice and other animal broths, which must be used sparingly. Every case of gastrointestinal disturbance, however slight, had the milk changed to barley water, one tablespoonful to a pint, and a little castor oil given in the intestinal cases, and calomel, 1/10 of a grain, was given every hour until six-tenths of a grain had been given in cases of vomiting. The stomach was washed, and if there was diarrhea, bismuth mixture given. They analyze cases and describe the methods of treatment, the roof garden, milk regulation and supply, etc.

3. **Rubber Gloves.**—The use of rubber gloves is deprecated by Morris, who thinks that they interfere with the expedition of operation, abolish the sense of touch and render greater the danger of injury to the peritoneum and bacterial infection. He believes that the actual resistance of the patient can be better conserved by the surgeon who works rapidly and with smaller incisions than is possible if he places an obstacle between the sense of touch and the object toward which that touch is directed.

6 **Ectopic Gestation.**—Starting with a detailed report of cases, Wells discusses the subject and concludes that recurrent ectopic gestation is not extremely rare, and may be expected in a large proportion of pregnancies that occur subsequent to a tubal implantation of the ovum. We are not justified in taking out the remaining and apparently normal tube at the first operation, but we should watch with unusual care the early progress of any subsequent pregnancy. Careful pathologic examination of specimens is desirable. The most frequent etiologic factor of abnormal implantation of the ovum is, he thinks, most probably a mild infection of the tube, causing change in its epithelial lining, increasing the time occupied in the passage of the fertilized ovum through the tube.

7. **Typhoid Fever.**—Nammack names the characteristic diagnostic signs of typhoid, giving in tabulated form the differential diagnosis from acute miliary tuberculosis and cerebrospinal fever.

8. **Cortical Paralysis.**—Kahn reports a case of traumatic cortical paralysis with anesthesia of the whole paralyzed side of the trunk, which he thinks indicates that the center for sensation of the trunk must be located in the same area as the motor function.

12. **Epilepsy.**—Park describes the surgical treatment of epilepsy rather more hopefully than some surgeons. His conclusions are given in the following:

1. Epilepsy is the last disease to which surgical measures should be indiscriminately applied. In judiciously selected cases, radical operations of various kinds, suited to the individual needs of each case, have given far more satisfactory results than has non-operative or medicinal treatment.
2. Every case must be studied as a problem by itself. The only general laws applying are those regarding the removal of peripheral or local foci of irritation and the destruction of paths of conduction which convey disturbing impulses. In each case we must decide as to the operative method by which we may best meet these indications.
3. In order to attain the best results patients should be seen early. It would be well to have every epileptic carefully studied by an accomplished surgeon, who should review the case with a view to the possibility of surgical intervention.
4. Operation, when indicated and undertaken, should be regarded as a first measure to be followed, and often preceded, by others looking to a correction of all faults of diet, of elimination, etc. Long continued attention to these matters is the price of eventual success.
5. In those cases characterized by blanching of the face, when the seizures can be warded off or mitigated by the prompt use of amyl nitrite, we may well consider the propriety of an exsection of the cervical sympathetic.

13.—Wakefield's article will be reviewed when completed.

15. **Verbal Amnesia.**—In the case reported by Gordon the patient was able to repeat words suggested to her, but was not able to give them without help. The partial loss of memory for words interfered with correct reading and writing. It was not the idea, but the verbal image that was wanting. He thinks the lesion was probably due to softening, as shown by the conditions of the patient's arteries and aorta.

16. **Adeno-Carcinoma of Male Breast.**—Two cases are reported by Hammond, both operated on successfully, the first patient dying later from apoplexy, and the latter now in perfect health. In both cases the histologic diagnosis was that of adenocarcinoma, though one might possibly have been called a scirrhus.

17. **Paraffin Prothesis.**—Alter calls attention to the possibility of a sequence of paraffin prothesis of saddle nose, paralysis of the muscular action of the wings of the nose causing impeded nasal respiration. He thinks this must be looked for whenever paraffin injections are made. He holds that this can in a great measure be prevented by firmly compressing the wings of the nose by an assistant placing a thumb in each nostril, making counter-pressure on the outside with the index fingers, the pressure being maintained until the nose has been molded into its proper shape.

19. **Obsessions.**—These symptoms, which pass under the name of fixed ideas, imperative conceptions, phobias, etc., are reviewed by Diller, who describes the types and reports cases. No hard and fast rules can be given as to their treatment; it should be directed mainly against the conditions from which these arise, though in all cases it may be more or less symptomatic. In any case mental treatment must be first and be individual. The physical tone must be maintained and here the simpler rules of hygiene are to be considered as well as the use of hydrotherapy, massage and electricity. Vacations, rest, exercise, recreations, all come under this head and while the treatment by drugs is of least importance, it is well to give some simple remedy, such as tincture of nux vomica, etc., for its tonic and mental impression. As a rule, however, the simpler the drug treatment the better.

20. **The Terms Acute and Chronic.**—From a study of the subject, Smith offers the following definition:

Acute, as applied to a pathologic process, indicates of such a disease that it runs a fairly regular and limited course; such course being frequently, although not necessarily, attended by severity of symptoms, and the limitation being possibly in recovery.

Chronic may be applied in conditions presenting no definite duration, more or less irregularity in the presentation of symptoms, a variable severity of symptoms, and ordinarily limited only by the death of the patient.

21. **Neurasthenia.**—The symptoms and treatment are described by Aikin. He advocates special attention to environment. The hospital or the trained nurse at home can make practical the systematic application of required measures, the use of the bath, graded for the individual, regulated diet, ex-

cluding as a general rule the salted meats and more indigestible vegetables, starches, bananas and strawberries, as well as sweets, coffee, tea and alcohol. Water should be copiously used, but not at meal time. The slow sipping of very hot water about one-half hour before each meal is often of benefit to the atonic stomach. Saline and lithia drinks assist in lessening fermentation in the alimentary canal. Hot broths and milk just at bed-time often help sleep. The patient should be encouraged but not too much indulged. If the home treatment is too lenient in this respect, a change is required. General faradization, hydrotherapy and massage are all useful. Drugs should be the last thing, but most neurologists use them. Among them, iron is of first importance. The alkalies are of great service, the glycophosphates of lime and soda are recommended. The fluid extracts of aqueous solutions (instead of tinctures, should be used to avoid the alcohol. If any gastric disturbance exists it should be treated. For hypnotics, trional and the bromids given in hot milk or broth are the most useful. Opium and its derivatives with alcohol in every form, are to be avoided. Constipation is best treated by gradually decreasing doses of salines with increased ingestion of water.

22. **Sex Production.**—Kolipinski has studied sex production, taking 192 families and dividing them according to types as to the first three births. The theory which he advocates is that the person of the greatest will-power will produce his own sex first; understanding by will-power, decision, determination and resolution. From his studies he finds that more males than females are born and that twins are more common among boys than girls, that older fathers produce more boys, and that wives older than their husbands produce more girls, which last he explains on his theory that the older person has the stronger will. Prostitutes give birth mostly to boys, which he also explains on the ground of their debilitated will-power. Jews have more boy children than their surrounding races. Finally, male drunkards produce boys. Whether this is on account of the chronic alcoholic poisoning of the fathers or whether it results from the cowed and miserable state of the mothers, is left unsettled.

23. **Nasal Obstruction.**—The importance of nasal obstruction is emphasized by Donovan, who enumerates the symptoms produced by mouth breathing, and he advises the general physician who meets many cases of hacking cough, hay fever, asthma, bronchitis, etc., to carefully examine the nose. He thinks many cases of neuralgias, conjunctivitis, keratitis, iritis, and lachrymal trouble are relieved by attention to the nasal mucous membrane. Attention must be given to the clothing and diet and each individual case considered. As regards operations, he says he favors them where required, but says the job you underdo may be corrected later, while the one you overdo can never be corrected. Unless one is absolutely sure that a portion should be removed, it is best to leave it alone.

24. **Barber-Surgeons.**—Taylor's address is an interesting historical summary of barber-surgeons as an institution of the past.

25. **Tetanus.**—Seven cases of tetanus are reported by Strong, with a discussion of the condition.

26. **Miscarriage.**—Some points of practical value in the diagnosis and treatment are noted by Friedman; the first is pelvic pain associated with uterine bleeding. The symptoms, however, often simulate those of bleeding extra-uterine pregnancy. He points out the differences, the tender mass at the side of the uterus and the discharge of decidua gravidatis without chorionic villi, and the disproportion between the severity of the pain and the size of the uterus, and between the blood lost and a pulse which indicates hemorrhage, also lack of the globular enlargement of pregnancy, the enlargement being longitudinal only. The question of threatened or inevitable miscarriage must remain always one of personal judgment in these cases. He suggests a plan of treatment to cover all cases: 1. Where there is a high temperature indicative of sepsis, or decided affection of the pulse rate by the bleeding, the uterus should be at once emptied. Careful attention should be directed to conservation of the ovum if neither of these conditions is present. If no part of the ovum is prolapsed, if the patient's pulse is good in quality and less than 110 beats per minute, treatment should be expectant and the case may be seen only occasionally if in charge of a good nurse. The prognosis is generally good. If radical measures are decided on, he would use the finger as a curette so as not to injure too much the uterine mucosa and possibly set up the foundation for a subsequent endometritis. If the finger can not be used, a curette should be employed and in that case the uterine cavity should be thoroughly irrigated with 1/5000 sublimate solution or 1.5 to 2 per cent. formalin or sterile water, the quantity being important. He thinks that most women either through design or unwittingly, underestimate the duration of their pregnancy, and this is a matter of importance as regards the removal of the placental remains or the decidua serotina. At seven or nine weeks he has found that a small tufted piece of chorion remains attached to the uterine wall and causes persistent bleeding, consequently, in very early miscarriages, this immature placenta must be sought.

27. **Axillary Carcinoma; Amputation Through Shoulder Joint.**—In 1897 Roberts advocated, before the Philadelphia Academy of Surgery, disarticulation of the shoulder-joint as a routine method of treatment for all cases of secondary axillary carcinoma from mammary tumors. This is different from the suggestion to remove the heavy lymphoid arm in order to get rid of the weight. He did not operate in this manner until 1899, and he reports a case. He subsequently found that Dr. Herman Mynter published in the *Buffalo Medical Journal* an account of a case in which he disarticulated the arm as a preliminary step to the removal of the malignant mass in the axilla, secondary to breast cancer. The patient lived a year. What he emphasizes particularly is that this should be advocated as a routine measure in all cases of axillary cancer, secondary to malignant disease of the breast, and that the subclavian artery and vein should be ligated above the clavicle before the disarticulation is done. Then the arm should be cut off and the lymph nodes and other affected tissues removed. A flap from the outer aspect of the arm may be retained to cover the axilla and chest, if such integument be needed.

28. **Hernia.**—The statistics as to the mortality, etc., of the operative treatment of hernia are reviewed by Martin, who remarks that the operation he has himself employed is practically the Halsted operation, differing only in the fact that the internal oblique and transversalis muscles are not cut. His records show 116 cases of hernia, including inguinal, femoral and the umbilical varieties. He tabulates these, giving the details briefly in cases of death, which were exclusively confined to the strangulated cases, and reports in detail several cases of interest, including four of properitoneal or interstitial hernia, one of reduction en masse and one of bowel rupture. In all the cases which he has been able to trace there has not been a single recurrence. He used in all, excepting two cases, non-absorbable sutures of silk and silver wire. In the two cases in which absorbable sutures were used, kangaroo tendons were employed. They did well, but he has not found it necessary to continue the use of this material for sutures.

30. **Exophthalmic Goiter.**—The case reported by Potts was peculiar. An ankle clonus existed during the disease, disappearing as the patient improved, and there were also attacks of apparent unconsciousness, the more complete ones lasting considerable periods of time, occurring after undue exertion and followed by more active symptoms of the disease. He also notes that marked improvement ensued from the use of sodium phosphate, and correction of the disease of the nasal mucous membrane, and emphasizes the bearing of the latter on the case.

31. **Tuberculosis.**—Two hundred and fifty cases are discussed by Campbell, 129 males and 121 females; 60 per cent. of the males being benefited, and 50 per cent. of the females. The former included more in the first stage of the disease, in which the proportion benefited reached 92 per cent. A family history of tuberculosis seemed to have some effect on the prognosis. Only 53 per cent. of subjects with this were known to have been benefited, while the percentage was 59 benefited of those with good family history. In the 21 cases in which the disease had not existed longer than three months, 73 per cent.

were benefited. In the 84 in which it had lasted longer than three months and less than one year, 56 per cent. were benefited. Of those in the first stage of the disease, 92 per cent. were benefited, and only 1.37 per cent. have died. In the third stage only 13 per cent. were benefited and 62 per cent. died. Of the total number of cases 17 3/5 per cent. were cured, leaving no symptoms whatever of the former disease except a slight dulness in the former consolidated area, and diminution of vesicular murmur. Hemorrhage occurred in 38 per cent. of cases, 16 per cent. being cured and 32 per cent. improved. A slightly larger percentage of cases without hemorrhage were cured and improved, showing that hemorrhage slightly reduces the chance of recovery. He calls attention to the importance of those going to Colorado having sufficient means to support themselves for a while, until they are sufficiently well to take up some light employment. He also insists on the importance of sending patients in the early stages rather than waiting for the fuller development of the disease.

32. **Neurasthenia.**—Walker finds from a study of neurasthenic cases that occasionally psychic symptoms of organic insanity may be present, recognizing, of course, that the early symptoms of these forms of mental disease are those which we habitually regard as functional. He emphasizes in conclusion the following points: 1. Every case of neurasthenia presents mental symptoms in some form. The difference between neurasthenia and certain forms of mental disease is largely one of degree; fundamentally they are the same, a pathologic lowering of the psychic functions, having the same etiology, and so far as he has been able to ascertain, the same underlying pathology of nutritive change in nerve-cells. From this point of view the mental symptoms assume greater significance and in many cases we may anticipate a greater degree of defectiveness to follow, depending on duration and virulence of exciting causes, the peculiar nature of causal poisons and vulnerability of individual tissue, and when they are encountered in one of previously known mental weakness, instability or eccentricity, or in one of insane ancestry, they should lead to energetic measures not only remedial and reconstructive, but tending to the ultimate regulation of the environment and conduct of the patient in order that more serious developments may be prevented.

43. **Schleich Anesthesia.**—The different forms of anesthesias and agents are noticed by Stone, who has used the Schleich solution in 666 operations, in 31 cases for long operations averaging 100 minutes to the operation. He gives certain anesthetic points, such as the muscular tone of the heart being the most important pre-anesthetic condition, the lymphatic habit the most dangerous. Securing the confidence of the patient is one of the most important duties of the anesthetist. The anesthetic should be given in a perfectly quiet room, never preceded by morphin, and care be taken that no artificial plate is left in the mouth. For chloroform the Esmarch mask is the best; the Stone mask is one of the best for ether and the Schleich solution. Begin slowly, never allow force used to restrain the patient, secure if possible profound surgical anesthesia before using the knife, and never observe the operation when giving the anesthetic. Watch the color of the face, lobe of the ear, also the pupil and temporal pulse. Train your ear so that it hears every breath without seeming to listen to the respiration. Add your anesthetic, whatever it may be, from the best dropper with constant uniform additions, the rapidity varying with the stage of the operation. Beware of a heart of feeble tone; use adrenalin or strychnia prior to anesthesia. In chloroform anesthesia beware of half-closed eyes. In the Schleich anesthesia only a fraction of patients with half-closed eyes give trouble. Keep the possibility of death on the table in mind. The normal pupil in good surgical anesthesia is well contracted and steady. A rapidly dilating pupil from a contracting one means imminent death. A pin-point pupil is indicative of a too profound anesthesia. Do not be alarmed by noisy respiration during rectal operations. Secure profound anesthesia before divulsion of the sphincter ani, and, if using chloroform, remove the mask the moment the surgeon's fingers touch the anus for divulsion. A deep inspiration of chloroform can easily kill; this precaution is not necessary with the Schleich solution. Never forget that partial anesthesia, "just enough to keep them under," is most dangerous. Never forget that the safest anesthesia is surgical anesthesia, steadily maintained, and that the least quantity of anesthetic which will assure this is best. If you ever have trouble, keep your head and act promptly. If collapse takes place, or ashy pallor and cessation of pulse, give adrenalin and strychnia at once, lower the head, making rhythmic traction of the tongue every four seconds and artificial respiration if this fails. Death is nearly always due to unskilful administration—administration of an overdose. Remember that profound sepsis, enfeebled heart action, chronic alcoholism, asthma, serious valvular lesions, and severe albuminuria are the most dangerous states for anesthesia.

46.—See editorial in THE JOURNAL of November 22, p. 1327.

47.—See abstract in THE JOURNAL, xxxviii, p. 1668.

48. **Bubonic Plague.**—Flexner gives a very good general account of our knowledge in regard to bubonic plague, which he says has gained admission into our midst. He describes the different types and calls attention to the personal transmission of the disease. Our ideas of the subject have greatly developed in the last six or seven years; there is hardly any medical subject in which our acquisitions have been more rapid. He calls attention, in conclusion, to the danger of too great indifference to the conditions on the Pacific Coast at the present time.

49. **Lymphotoxic and Myelotoxic Intoxication.**—But few publications have appeared in regard to lymphotoxins and myelotoxins, as Flexner remarks in the beginning of this experimental study. He experimented extensively on guinea-pigs and notes the changes observed. The reaction of the bone marrow especially to the lymphotoxins and myelotoxins is remarked on; while the reaction of the lymph glands, intestinal lymphoid tissue, and spleen to bone marrow toxin is remarkable, the response of the marrow to lymphotoxins and splenotoxins is far less marked. The first, he says, can only be explained by the possession of numerous amboceptors common to the lymphoid cells and capable of stimulating such tissue to activity, while the smaller response of bone marrow to foreign cytotoxins may be dependent on its possession of a smaller number of cells with the corresponding receptors for fixation of the amboceptors of these sera. He also calls attention to another point. In spite of the striking hyperplasia of cells, the degenerations discovered were minute and comparatively trifling, and the glandular reactions are far behind those caused by microbic toxins, and he emphasizes the importance of the molecular or other invisible forms of injury which may occur.

52. **The Dysentery Bacillus.**—That the bacillus of Shiga is the cause of acute and other forms of dysentery in all climates and probably a number of summer diarrheas prevailing in the warm countries among infants is the first conclusion of Gay. He finds that guinea-pigs react characteristically and that if the bacillus is cultivated outside the body it quickly suffers a reduction of virulence for guinea-pigs, which, however, may be increased by successive passages through the body of these animals. This results in the establishment of a uniform grade or degree of virulence in the organism, irrespective of its source, which adapts it for the production of vaccines of quite uniform activity. The vaccines consist of suspensions of dysentery bacilli killed by the addition of tricresol, the activity of which undergoes an increase, for a time at least, that is coincident with disintegrative changes taking place in the microorganisms. This vaccine suffices to protect guinea-pigs from a succeeding multiple fatal dose of living dysentery bacilli, and to produce in the horse an active immune serum. The immune serum of the horse exhibits marked protective properties in preventing fatal infection with the bacillus or intoxication with its vaccine in guinea-pigs. While the several bacilli used in the investigation belonged to one definite species, minor distinctions were present. The most marked differences noted were the weaker virulence of the "Kruse" stain as compared with the other strains of bacilli, and the slightly reduced activity both of vaccine and immune serum when directed against strains of organisms other than that from which they were

prepared. The bacillus of dysentery resists bacteriolysis by blood serum to a greater extent than some other members of the colon-typhoid group of bacilli. The use of serum therapy for bacillary dysentery and for certain forms of the summer diarrheas of infants is rendered highly promising.

54. **Red Blood Corpuscle Thrombi.**—Flexner's conclusions are given as follows:

1. Agglutination of red corpuscles *intra vitam* is not uncommon in infectious diseases in man and animals. 2. A special variety of thrombi is produced through this agglutination, which may be denominated agglutinative thrombi. 3. When such thrombi are old, or when the agglutination is compact, they may present appearances to which the name of "hyaline thrombi" has been applied. 4. Other alterations of the blood than those arising in infectious diseases may bring about agglutinative thrombosis, the nature of this alteration being little understood. 5. Poisons which destroy corpuscles rapidly are provocative of agglutinative thrombosis. 6. The so-called "fibrin ferment thrombi" are probably nothing else than agglutinative thrombi.

55. **Antihemolysis.**—Noguchi's article, of which the title gives almost a synopsis, ends with the following conclusions:

1. Blood sera and milk exert more or less anti-hemolytic action against certain phyto-hemolysins and bacterial hemolysins, and their action is non-specific. 2. The manner of anti-hemolytic action of sera and milk agree with the manner of action of cholesterin and lecithin against these hemolytic agents. 3. It is highly probable that this anti-hemolytic action of sera and milk depend either wholly or in part on their cholesterin constituent. 4. Agarcin contains a hemolytic principle of considerable activity. 5. Hardened red corpuscles may still be agglutinated by ricin, venom-agglutinins, and serum agglutinins.

56. **The Bacteriolytic Serum-Complements in Disease.**—The following are Longcope's conclusions:

1. Normal individuals show slight fluctuations in the bacteriolytic complement-content of their blood. 2. In many prolonged chronic affections, such as nephritis, cirrhosis of the liver, and diabetes mellitus, there is a marked decrease in the bacteriolytic blood complement, which becomes more marked toward the end of the disease. 3. Terminal infection in chronic disease is probably the direct result of the diminished state of the bacteriolytic complement. 4. The blood serum of certain individuals suffering from chronic disease does not show a reduction in complement; these individuals appear to escape terminal infection. 5. Hyperleucocytosis is frequently associated with high complement-content of the blood serum for typhoid and colon bacilli. 6. The blood serum of some typhoid fever patients shows a diminution in the specific complements for the typhoid bacillus. 7. Human blood serum contains a multiplicity of bacteriolytic complements.

61.—This article has appeared elsewhere. See THE JOURNAL of November 1, title 60, p. 1131.

62. **Fat Percentage.**—Westcott emphasizes the following points:

1. In cases of chronic gastric or chronic high intestinal catarrh, in which underfeeding for a considerable time becomes necessary, the most satisfactory results may be obtained by the use of whey mixtures, in which the deficiency of proteids in ordinary modifications is supplemented by a high percentage of lactalbumin. 2. In many of these cases unusually low percentages of fat must be given, and for this purpose dilutions of milk without cream in conjunction with a fat-containing whey offers the most expeditious means of increasing caseinogen and of keeping the fat percentage within the bounds of digestive tolerance.

63. **Milk Proteids.**—The point made by Chapin is that the different results obtained by various authorities in regard to the proportion of proteids in milk, are due to the different methods of analysis and until we can learn the composition of the different proteid bodies and some uniform method of separating these, comparing the milk analyses made by different methods may lead to erroneous conclusions.

65. **Bronchitis and Bronchopneumonia in Children.**—The principal thing in children who continuously take cold is to increase the physical vigor, not to live or sleep in too warm apartments, with a simple diet, pure air day and night, systematic development of the muscular system, plenty of sleep, bathing and open air treatment as much as possible. Allow the child to go barefoot; the child that has not been allowed to go barefoot has lost one of the privileges of childhood. For the medicinal measures Mitchell mentions cod-liver oil for its general tonic effect, iron, and iodid of potash. Where there is enlargement of the lymph nodes, a course of syrup of iodid of iron is often beneficial, but all drugging which interferes with the appetite or digestion should be avoided. In the treatment of severe bronchitis, the cotton jacket, either with the oiled silk covering, or made by basting the cotton inside an ordinary undershirt, is a good plan. Counter-irritants he does not believe in. The question of alcoholic stimulants is to be decided by the individual case. Control of temperature is best done by a warm bath gradually reduced, with cold sponging of the head. The cold plunge bath is not well-borne by children. Careful feeding is of great importance. For cases that become subacute or chronic, creosote preparations are of great value. Carbonate of guaiacol has been used by Mitchell; it does not readily derange the stomach. Strychnia is often useful as a heart stimulant.

71.—See editorial in THE JOURNAL of November 22, p. 1327.

78. **Enlargement of the Pelvic Outlet During Labor.**—The results of measurements in nine cases are reported by Neumann. Enlargement of the transverse diameter of the outlet during labor was observed in every case, the maximum being in one case 2.5 cm. It could be noted as soon as the fetal head entered the pelvic cavity. In 6 of the 9 cases a measured increase could be observed in the sacro-pubic diameter, being in one case fully 2 cm. He does not claim that this is the typical occurrence during the stage of expulsion, as he has been able to determine its absence in other cases. He thinks that the enlargement is probably produced by the force of the descending head, the pelvic articulations having been unusually relaxed during pregnancy. The question remains in what percentage does this enlargement occur, how great can it be, and what conditions favor the phenomenon? What effect does this increase or a complete absence of such exert on the mechanism, course and management of labor? He thinks that these questions can probably be satisfactorily answered if such measurements are made more extensively with more general use as a mode of examination of the *x*-rays.

79. **Cardiac Dilatation in Puberty.**—The cardiac dilatation that occurs from over-exertion in young children and especially at the age of puberty when they begin to use more muscle strain, particularly in the case of boys, is noted by Friedlander. The symptoms are dyspnea, weakness after even moderate exercise and often severe palpitation at such times, pallor, sometimes even cyanosis, capricious appetite and disturbance of sleep. These become more manifest the longer they are allowed to go uncorrected and the longer the exciting cause is allowed to exist. Physical examination shows a diffuse apex beat to the left of the mammary line, an increased area of precardial dulness, prolonged first sound at the apex or possibly a distinct systolic bruit. The question then is whether we have to deal with some grave heart disease or simple myocardial weakness, especially if there is an antecedent rheumatism or chorea, and the signs and symptoms of valvular lesion be present. Such cases are, however, exceptions. In uncomplicated cases the prognosis generally is good, the recuperative power of the heart muscle is sufficient to bring things around to the normal if the cause is removed. Exercise should be restricted and in severe cases it is best to put the patient to bed. The diet should be light and nutritious, but should have a minimal quantity of fluid. Liquid food given in small quantity is best. In the beginning if there is much irregularity of the heart's action, digitalis is often of value, and strychnia is frequently of service at all stages. The principal thing, however, is to rest the heart, not to stimulate it.

80. **Inebriety.**—Crothers summarizes his views that the periodicity of the drink paroxysm is evidence of central brain disease, and that heredity, nutrition, mental exhaustion, and environment are all very common causes or predisposing factors of this condition. Allied diseases, of which epilepsy is very common, are frequently interchangeable or associated. The drink periodicity follows a uniform line of events. These are the most uncertain and dangerous of all drink neurotics and are the least understood. The prognosis is uncertain and full of dangerous possibilities. Very important medicolegal problems are associated with them, and each case requires especial study.

83.—See abstract in THE JOURNAL of October 25, p. 1064.

88. **Optimism and Pessimism in Medical Practice.**—The principal points made by Inglis in his article are the needlessness of the too common pessimistic views in regard to certain forms of nervous diseases, such as hysteria and neurasthenia, each of which is capable of the most sudden and rapid improvement. It is important in these cases not to help the morbid condition by pessimistic suspicions or attitude on the part of the physician and the special importance of this in

medicolegal cases is noted. Even serious organic nervous troubles like locomotor ataxia often have not the bad prognosis that is too commonly given them. Many cases of locomotor ataxia he believes can be improved, not only in symptoms, but the sclerotic areas may diminish. Even in infantile paralysis the great majority of cases could be spared their deformity if the physicians were impressed with the fact that countless new cells in the spinal cord are going to develop and take up their activities.

90. **Ophthalmia Neonatorum.**—Campbell reports cases of entropion, perforating corneal ulcer and secondary glaucoma with buphthalmos.

91. **Typhoid Fever.**—Duffield believes in intestinal antisepsis and finds that guaiacol meets the needs better than any other remedy. He usually gives 5 minims every three or four hours in capsules and has often noticed a special antipyretic effect, though given for its antiseptic properties. Its local application has taken the place of baths with him for many years. He employs it over the ileocecal valve, rubbing in four or five minims gently and covering with cotton wadding. The skin seems to absorb the remedy quickly. As regards diet, he objects somewhat to the exclusive milk diet because milk is not a fluid within the body, but he allows plenty of sterile water, beef broth, beef juice, strained animal broths and certain artificial foods. As the fever abates, the broths may be thickened and a soft diet be substituted gradually.

93. **Normal Saline Solution.**—Campbell uses normal saline solution in many conditions, aside from emergency cases, for loss of blood. He finds it valuable in the hemorrhages of typhoid. It is an extremely valuable adjunct. Heart disease, hemophilia, atheroma, apoplexy, chronic diseases of the lungs, kidneys or liver are all contraindications.

95. **Drainage.**—Clark thinks drainage is still too much followed. It simply means untidy surgery and hinders the free exit of pus and infectious matter. It introduces a foreign body, leads to infection, is often difficult to remove, weakens the abdominal wall and leads to hernia, retards the healing of the wound, may be the cause of great pain and serious accidents in its removal from adhesions and may also cause fecal fistula.

96.—See THE JOURNAL, xxxviii, ¶144, p. 793.

99. **Retention of Urine.**—The retention of urine from acute inflammatory injuries and organic stricture and senile enlargement of the prostate are all noticed in detail with their treatment by Brinton.

100. **Chronic Nephritis.**—Anders remarks that carefully selected hygienic treatment may often retard or arrest the morbid processes in this condition, and he advises a mixed diet with some digestible vegetable and starchy foods in most cases. An absolute milk diet is recognized to cause, by the ingestion of massive quantities of fluid, increased blood pressure and overwork of the heart, an objection which is often overlooked. He does not find that the proteid foods necessarily cause uremia, though an excessively animal diet may have some such effect. As regards uremic convulsions he finds dry cups applied over the loins exceedingly effective, and better than diuretics. He speaks highly of venesection in this condition followed by normal saline solution administered intravenously. The question of the use of morphin is discussed and experience shows that it is less harmful than might be expected. In acute nephritis and in chronic nephritis it should only be applied after other remedies, including jaborandi and venesection, have failed or are contraindicated by too great feebleness of circulation. Chloroform has some advantages in uremic convulsions, it being a rapid remedy. Cerebral hemorrhage should be treated as in other conditions. When a hypnotic is needed, sulphonal, trional, and chloralose are the best drugs. For the headaches associated with renal disease, palliation is the only possibility. Restriction or regulation of diet may do some good. Phenacetin (5 or 10 grains) combined with caffein (2 to 3 grains) in capsules, every third hour has had good effects in his hands.

101. **Strychnin.**—Curtin protests against the too common overdosing with strychnia.

102. **Eclampsia.**—The treatment of puerperal eclampsia is summed up as dietetic, hygienic and medicinal, an exclusive milk diet without any beef preparations or other foods, frequent bathing, keeping the skin active, diuretics, when necessary, and laxatives or cathartics, with high enemata if we can not give enough water by the mouth, and calomel in small doses frequently repeated. To control the convulsions the following are the chief agents: chloroform, veratrum viride, morphin and chloral. Chloroform must be given almost constantly during the convulsive stage and the stage of coma. Norwood's tincture given hypodermically is useful only in plethoric women with a full, bounding and rapid pulse. Morphin should be given cautiously because of its possible effect on the excretory function of the kidney, and if possible not given at all. Chloral can be given with or without the bromids. Forced delivery with as little damage to the mother as possible is the treatment to be relied on.

103.—See abstract in THE JOURNAL, xxxviii, p. 1390.

105.—See editorial in THE JOURNAL of November 22, p. 1327.

106. **Thiosinamin.**—The action of thiosinamin is, Somers says, elective for poorly organized tissue, especially cicatricial and fibrous, and he reports a dozen cases of aural disease thus treated in doses of ½ to 1 grain, three times daily in capsules. In a few recent cases he gave three grains daily in divided doses for two weeks, then increasing to 6 grains daily, but found that it produced nausea. At first he used it to the exclusion of all other remedies, but he found later that it was better adapted for an adjunct than an exclusive treatment. It has certain contraindications and it should be avoided in case of existing old fibrous tissue which acts as a support to important structures, and also in active inflammatory processes if it aggravates them. In his cases the results seemed to be generally satisfactory.

108. **Formin.**—Snider recommends the use of formin and gaduol, reporting a case of kidney complication of miscarriage where they were employed. He thinks formin has a special value in the puerperal states of the kidneys.

111.—See editorial in THE JOURNAL of November 22, p. 1327.

118.—This article has appeared elsewhere. See THE JOURNAL of November 15, title 26, p. 1278.

124. **Lateral Sinus.**—Powers reports a case in which an abnormality existed of the lateral sinus which extended directly under McEwen's triangle and the fossa mastoidea so that there was no possible means of entering the antrum without first going through the sinus transversus.

125. **Uterine Carcinoma.**—The inoperable and hopeless cases of uterine carcinoma are, as Stapler points out, often greatly relieved by treatment, caustic applications, etc. For operable cases the only thing to do is to resort to surgery as soon as possible. He gives the details of Wertheim's operation, which is the ideal of a radical treatment. (See Wertheim's latest report, ¶48, p. 1491.)

127. **Fractures.**—From the cases here reported, Stratton deduces the following conclusions:

1. The management of fractures which are in locations most frequently the site of delayed or non-union, namely, the shafts of long bones, and especially those of the lower extremities, should receive treatment, adapted to prevent as far as possible failure of prompt union. 2. This should be most carefully followed in individuals of low general vitality from any cause, and especially when associated with the abuse of alcohol. 3. This preventive treatment is also demanded in cases in which the nutritive processes at the site of fracture are deficient by reason of the extreme violence of the traumatism, or former bone injury, or existing bone disease, with or without loss of bodily tone. 4. That in cases of simple fractures, at least, local and general massage, electrification, stimulating frictions, out-of-door life, change of climate, and detailed attention to the state of bodily health, are well-known means of securing a higher degree, not only of general vigor, but also local nutrition of the injured limb, which need to be more generally considered in relation to the prevention of these complications.

131. **Hyoscin Hydrobromate in Alcoholism.**—Bering reports a case treated according to the method recommended by Lott, with frequently repeated doses of 1/100 grain of hyoscin hydrobromate, followed later with pilocarpin, the man taking altogether 43 doses of 1/100 of a grain inside of three days. He was apparently entirely cured, not only of his chronic alcoholism, but of the effects of the drugging. [The remedy

seems risky thus employed considering the effect of hyoscin in some cases.—ED.]

136.—See editorial in THE JOURNAL of November 22, p. 1327.

141.—Ibid.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal (London), November 15.

1 *The Treatment of Pneumonia. Dyce Duckworth.
2 *The Diazo-Reaction in Pulmonary Tuberculosis. Raoul De Boissiere.
3 *Two Cases of Hyperpyrexia with Recovery. Robert E. Lord.
4 *Concurrent Scarlet Fever and Measles in Children. Ernest A. Dent.
5 Dengue Fever in Penang. F. M. T. Skae.
6 Dengue Fever in Burmah. W. G. Pridmore.
7 The Treatment of Ague by the Hypodermic Injection of Quinin. John Smyth.

The Lancet (London), November 15.

8 *The Natural History and Pathology of Pneumonia. J. W. Washburn.
9 *Some Considerations upon the Possibilities of Future Legislation in Matters of Public Health. John F. Gordon Dill.
10 *The Nature, Causes and Treatment of Cardiac Pain. Alexander Morison.
11 *Primary Carcinoma of the Liver; Very Rapid Growth; Great Emaciation with Increase in Body Weight; Marked Pyrexia; Duration, Four Months (?); Death. T. D. Acland and Leonard S. Dudgeon.
12 *Exposure of the Gall Bladder and Bile Ducts. Bilton Pollard.
13 The Treatment of Early Cancer of the Larynx in Thyrotomy. Eugene S. Yonge.

The Practitioner (London), November.

14 *Views on Alcohol as a Beverage and Medicine. Samuel Wilks.
15 *A Personal Experience of Alcohol. Henry Thompson.
16 *Alcohol as a Medicine. W. H. Broadbent.
17 *Notes on the Pathology of Alcoholism. G. Sims Woodhead.
18 *Alcoholic Beverages. James Edmunds.
19 *Alcohol in Surgery. Pearce Gould.
20 *On the Treatment of Dipsomania and Chronic Alcoholism by Hypnotic Suggestion. J. Milne Bramwell.
21 *Alcohol from a Sociological Standpoint and the Medical Temperance Movement. J. J. Ridge.
22 *Mortality from Alcoholic Excess in England and Wales. Francis Vacher.

Intercolonial Medical Journal of Australasia (Melbourne), October 20.

23 Presidential Address, Melbourne Medical Association. Charles Usage.
24 Examination of Victorian Railway Employes in Vision, Color Sense, and Hearing. Hugh L. Murray.
25 A Note on the Diagnosis and Treatment of Antral Empyema. James W. Barrett.

Australasian Medical Gazette (Sydney), October 20.

26 The Majority of the Medical School of the University of Sydney; Being an Account of the Rise and Progress of the School. T. P. Anderson Stuart.
27 Bacteriology of the Blood. H. Skipton Stacy.
28 On the Value of an Examination of the Blood as an Aid to Diagnosis. C. Reissmann.
29 Influenza. W. Camac Wilkinson.

Annales de l'Institut Pasteur (Paris), xvi, October.

30 Sur le sort (fate) des bacilles de la lèpra dans l'organisme des animaux. W. W. Iwanow.
31 Sur les sensibilisatrices des serums actifs contre les substances albuminoides. Gengou.
32 Recherches sur les anticorps des spores. W. Defalle.
33 Note sur les diverses pasteurelloses observées en Turquie. M. Nicolle.
34 Sur le chauffage électrique des étuves à température constante (electric incubators). L. Martinier.

Presse Med. (Paris), ii, October 29 to November 8.

35 (No. 87.) *Le globule eosinophile du sang. Recherche et morphologie. V. Audibert.
36 (No. 88.) *Pathogénie de la grenouillette (ranula) sublinguale commune. B. Cuneo and V. Veau.
37 (No. 89.) *Indications de l'operation de Bottini. E. Desnos.
38 *Nouvelle solution de cocaine pour la rachicocainisation. Guinard, Ravaut and Aubourg.
39 (No. 90.) *Les leucocytoses dans les maladies infectieuses. F. Bezançon and M. Labbé.
40 Les travaux (works) scientifiques de la Conference Internat. de la Tuberculose. E. De Lavarenne. (Commenced in No. 89.)

Revue de Gynecologie (Paris), vi, July to October.

41 (No. 4.) *Procédé opératoire pour la cure des grands prolapsus génitaux. G. Bouilly and R. Loewy.
42 *L'éclairage de la cavité abdominale (ventroscopie) comme methode d'examen dans les cas de celiotomie vaginale. D. de Ott.
43 *Contribution à l'étude de la tuberculose primitive du canal cervical de l'utérus. Brouha.
44 *La technique de l'operation de Maydl dans la cure de l'exstrophie vesicale. E. Forgue.
45 *Traitement de choix de l'anus herniaire. V. Pauchet.
46 (No. 5.) *Indications et résultats de l'hystérectomie dans le cancer de l'utérus. S. Pozzi (Paris).
47 *Traitement chirurgical du cancer de l'utérus. T. Jonnesco (Bucharest).
48 *Ibid. E. Wertheim (Vienna).
49 *Ibid. T. S. Cullen (Baltimore).
50 *Ibid. W. A. Freund (Berlin).
51 L'hystérectomie dans le traitement de l'infection puerpérale. Ibid.
52 Ibid. T. Tuffier (Paris).
53 *Ibid. H. Treub (Amsterdam).
54 *Ibid. Leopold (Dresden).
55 Discussion on above addresses at IV Internat. Congress of Gynecology, Rome, September 15-21.

Centralblatt f. Chirurgie (Leipsic), to November 15.

56 (No. 43.) *Hartes traumatisches Edem des Hand- und Fuss-Rückens. Vulliet.
57 (No. 44.) *Ein Beitrag zur Therapie des Mastdarmvorfalls (rectal prolapse) bei Infantilismus. K. Sonnenschein.
58 (No. 45.) *New Method of Spinal Cocainization. Koslowski.—Ueber ein neues Verfahren bei der Lumbalanästhesie.
59 Technic of Oxygen-Chloroform Narcosis. H. Wohlgemuth.—Zur Sauerstoff-Chloroform-Narkose.
60 (No. 46.) *Die Radikal-Operation des kindlichen angeborenen Leistenbruches (congenital inguinal hernia in children). P. Kremm.
61 Apparatus for Oxygen-Chloroform Narcosis. Roth.—Zur Sauerstoff-Chloroform-Narkose.

Centralblatt f. Gynaekologie (Leipsic), to November 15.

62 (No. 43.) *Neuer Apparat für Hypodermoclyse und endovenose Injectionen. L. A. Oliva (Genoa).
63 Report of Section of Gynecology and Obstetrics at Naturforscher Congress.
64 (No. 44.) *Growth of Placenta. F. Hitschmann and O. T. Lindenthal.—Ueber das Wachsthum der Placenta.
65 (No. 45.) Mortification und Spontan-Elimination eines grossen Myoms. G. Schmauch (Chicago).
66 (No. 46.) *Complication der Schwangerschaft (pregnancy) und Geburt mit Mastdarmkrebs (rectal cancer). Rossa.
67 Report of Internat. Congress of Gynecology at Rome, September 15 to 21. (Commenced in No. 41.)

Therapie der Gegenwart (Berlin), October.

68 *Ueber physiologische Albuminurie. W. von Leube.
69 *Ueber Osmo-Dietetik. H. Strauss.
70 Ueber einige neuere electro-therapeutische Methoden. A. Eulenburg.
71 *Review of 720 Gallstone Laparotomies. H. Kehr.—Ein Rückblick auf 720 Gallensteinlaparotomien, mit 90 Hepaticus-Drainagen.
72 *Vibration Massage in Expulsion of Kidney Stones. G. Klemperer.—Vib.-Massage zur Durchtreibung von Nierensteinen.

Zeitschrift f. klin. Med. (Berlin), xlvi, 1-4.

73 (Festschrift for T. Dunin of Warsaw.) Untersuchungen über das Contagium der Variola. W. Dombrowski.
74 Behandlung der Aorten-Aneurysmen mit subcutanen Gelatine-Injectionen. M. Halpern.
75 6 Fälle von Geschwulste und Abscesse des Gehirns (brain tumors). S. Kopzynski.
76 Ueber die diagnostische und prognostische Bedeutung des Blutbrechens (vomiting of blood). W. Janowski.
77 *3 Fälle von Neuritis arsenicalis. Ibid.
78 2 Cases of Inflammation of Spine. J. Markewicz.—Beitrag zur chron. ankylosirenden Entzündung der Wirbelsäule.
79 *Hemorrhage from Erosion in Stomach. S. Mintz.—Ueber Hem e Magenerosionen.
80 Die chemischen und morphologischen Eigenschaften der Hydrops chylosus et chyliformis. D. Mutermilch.
81 *Periodische Neurasthenie. A. Pulawski.
82 Determination of Nutritional Value of Food in a Sanatorium. Ibid.—Versuch der Nährwerthbestimmung in einer Heilanstalt.
83 Zur path. Anatomie und Klinik des primären Magen-Sarcoms. J. Pstrokonski.
84 Metabolism in Chronic Nephritis. C. v. Rzalkowski.—Zur Lehre des Stoffwechsels bei chron. Nierenentzündung.
85 Ueber die operative Behandlung des Hydrops Anasarca. S. Trzebinski.
86 *Methylene Blue Test of Kidney Functions. A. Landau.—Untersuchungen über die Leistungsfähigkeit der Nieren mit Hilfe des Meth. Blau.
87 Experimentelle Untersuchungen über das Verhalten des Eisens (iron) im Organisms der Thiere und Menschen. H. Landau.
88 *Ueber den Einfluss (influence) des Alcohols auf die Blut-Circulation. J. Swientochowski.

Sei-I-Kwai (Tokio), xxi, 4 to 8.

89 (Nos. 4 and 5.) *Cultivation of the Virus of Variola. T. Ishigami.
90 (No. 6.) *Peculiar Neurosis of the Aboriginal Japanese. Y. Sakaki.
91 (No. 7.) *Tuberculosis of the Pharynx. E. Kanasugi.
92 *Effect of the New Modes of Prophylaxis of Malaria Adopted in Formosa. M. Koike.
93 *Stored Rice and Beri-Beri.

Tidsskrift f. d. Norske Laegerfor. (Christiania), xxii.

94 (No. 16.) Venereal Diseases in Christiania in 1901. Y. Ustvedt.—De ven. sygdomme i Kristiania i 1901.
95 (No. 17.) *Reposition af luxatio humeri a la Riedel. A. Maarud.
96 (Nos. 18 and 19.) *Medicin-Dispensirung paa landsbygden. U. Bugge.
97 Instruction in Medicine in Sweden. H. P. T. Orum.—Den med. undervisning i Sverige.
98 (No. 20.) Smallpox Epidemic at Svelvik. M. Geirsvold.—Kopperne i Svelvik.
99 (No. 21.) *Practical Mode of Reducing Luxatio ant. humeri. O. Borchgrevink.—Praktiske repositionsmaader ved. Lux. ant. hum.
100 Om prostatisme. A. Hanson.

1. **Pneumonia.**—Duckworth's treatment of pneumonia consists of fever diet, mainly milk and beef tea, the reduction of excessive temperatures, both by sponging with ice water and local applications of ice, by Leiter's tubes or a similar arrangement. The plunge bath, he says, is not well borne and is exhausting, nor does he advise coal tar antipyretics. He advises 5 grs. of quinin every two or three hours until the temperature falls, and recommends a simple fever mixture of potassium citrate and ammonium acetate. Quinin is perhaps the most valuable drug, in 2 or 3 grain doses every three hours. After a day or two one may add a little compound tincture of bark to the fever mixture, one-half to one dram to each dose. The lungs should be carefully examined without exhausting the patient. After four or five days the fever usually breaks. If it does not, look out for complications; there may be an empyema which usually begins with pneumonia. There is a possible abortive type, the patient is ill and there may be herpes or some symptoms of lung disease, but the crisis may come on the second or fourth day and all the symptoms pass off. The occurrence of herpes is on the whole a rather favorable symptom, though he does not say why. Pneumonia in the drunkard is most certainly a deadly disease and double pneumonia is absolutely fatal. Influenzal pneumonia is severe, especially in elderly people. Opium may be beneficial in some cases, but it should be used with care and only where there is no reason to suspect kidney involvement. Heart failure is a severe complication to be looked for after middle life. Oxygen is advised and hypodermatics of strychnia. Duckworth speaks highly of the use of musk; he generally combines it with Hoffman's anodyne, and gives it at short intervals. A mercurial purge may be given in the beginning of the case, and the bowels will probably not require attention later. In winter time successions of hot poultices may be applied to the affected side and in hot weather be replaced by cotton wool sprinkled with spirits of camphor. The study of the temperature chart, and especially of the conditions of the heart are advised.

2. **Diazo-Reaction in Tuberculosis.**—De Boissiere reports observations and finds that the diazo-reaction occurs in a comparatively small number of cases (18 out of 130 cases examined). When present it is usually in cases of definite pyrexia and is associated with an advanced stage of the disease. In many advanced cases, however, it is absent. His findings disagree with those of Bolli in regard to its frequency, but he thinks that it has a certain prognostic value. Its presence is to be regarded as of grave significance if persistent and its disappearance considered a happy omen.

3. **Hyperpyrexia.**—The two cases reported are one of probable influenza in which the temperature ran up to 111.5 with recovery, slow but good, and the second was a case of liver abscess where the temperature rose to 110. In both cases the thermometers were compared and tested.

4. **Concurrent Scarlet Fever and Measles.**—Dent reports a case where these two diseases occurred in two persons of the same family and he suggests the possibility of the so-called "fourth disease" being an analogous mixture of German measles and mild scarlet fever.

8. **Pneumonia.**—This first Croonian lecture deals with the bacteriology.

9. **Public Health.**—Several points specially noted by Dill in his presidential address, are the danger to the public from syphilis, which he thinks is neglected in public medicine, the victims of it being perfectly free to extend the disease without any legal restrictions whatever; alcohol; the increase of insanity and its inheritance. He thinks the time is ripe for a considerable enlargement of the list of notifiable diseases, including syphilis, drunkenness and insanity. It would probably be advisable to compel those intending to marry to provide themselves with a certificate of health made on a special form like those of life insurance companies and with particular reference to hereditary disorders.

10. **Cardiac Pain.**—In this third lecture, Morison draws from the total of his studies the conclusion that the exclusive arterial views of the malady must be abandoned. The rôle of the blood vessel as a hemaduct has been exaggerated; it is more than a simple duct, it is a muscular organ, innervated, irrigated, mobile and capable of being disabled like the heart in its muscle, its blood supply and its nerves. Angina pectoris, contrary to Huchard's views, is probably not a single disease, excepting in its symptom of cardiac pain, but is essentially three-fold, muscular, neurotic and hemic. As regards etiology he holds that it is not the rise of blood pressure as such which causes angina, but blood pressure in many cases, whether propulsive or obstructive, exercising its influence on local anatomic lesions or strained physiologic structures in the heart or in its immediate neighborhood.

11. **Liver Carcinoma.**—Acland and Dudgeon report a case and discuss the literature. They find that practically little is known with certainty as to the origin of primary carcinoma of the liver.

12. **Gall Bladder Exposure.**—Five cases are briefly summarized and Pollard is much impressed by the advantages of the Mayo Robson incision, namely, a longitudinal incision in or about the linea semilunaris and an oblique incision passing downwards from the middle of the rectus at the costal margin. This combined oblique and longitudinal incision can be employed without dividing the fibers of the rectus muscle. It can be split over the lower costal cartilage and the inner half be retracted inward without division, sufficiently to allow of the transversalis muscle and the peritoneum beneath being divided right up to the interval between the costal margin and the ensiform cartilage and the liver pushed forward by the sandbag; prolapses through the wound and its lower portion can be everted through the costal margin so as to display the biliary passages most completely and the ducts pushed and pulled forward, occupy such a superficial position that he, like Mayo Robson, has found it quite easy to stitch up the wounds of either the common duct or cystic duct with a small curved intestinal needle, held between the thumb and forefinger. The help afforded by the sandbag behind the hepatic region is very real, as is shown by the altered position of the parts when the sandbag is removed.

14. **Alcohol.**—Wilks considers alcohol a beverage and a medicine. He thinks some medical men are too indiscriminate in its use and he has had to diagnose drunkenness as the cause of the symptoms seen in cases where he was called in consultation. As a remedy in nervous disease, alcohol is invaluable and it has a place as an anodyne, but the greatest care must be used in its administration, especially in cases of low spirits and general mental despondency. The term "sedative" denotes its action in fever, since a stimulant ought to aggravate the condition. The question of diet is entirely outside the domain of the medical man. People will take liquor because they like it and the question is one of appetite.

15—See editorial.

16. **Alcohol.**—Broadbent finds alcohol useful as a stimulant, that is as an indirect one. It should never be given in the early stages of febrile disease even when the patient is in the habit of taking it. Later the indication for its employment is not muscular prostration and weakness of which the patient may complain. We should be guided by the pulse, its frequency and low tension with dicrotism and anacrotism, rather than by its apparent strength; the dry state of the tongue, and sordes about the lips, teeth and palate are indications for alcohol. To promote sleep alcohol is valuable. Its odor on the breath should be noted, and, if marked, should be an indication for the discontinuance.

17.—See editorial.

18.—See editorial.

19. **Alcohol in Surgery.**—Gould first notices the importance of alcohol in furnishing subjects for surgery and then as a complication in surgical cases and its uselessness and danger in septic conditions. He does not think it an aid in the repair of wounds and the convalescence from severe injuries, nor does he think alcohol of primary value in the treatment of shock or collapse. It is of use only in helping to tide over an emergency. It may be of some use in cases of advanced cancer as a sedative or to help appetite, but anything like the free use of alcohol is to be deprecated.

20. **Hypnotism in Alcoholism.**—Bramwell reports cases thus treated and insists on the importance of beginning treat-

ment at the commencement of a period of quiescence and securing the patient's co-operation. Patience on the part of the operator and persistence in suggestion of the distaste of alcohol are emphasized.

21. **Sociologic View of Alcoholism.**—Ridge gives a tabulated statement of the expenditure for drink during the nineteenth century, showing that it has more than quadrupled; that the cost per head has risen from £2 4s. 2¼d. (about $10.70) in 1801 to £3 18s. 8d. (about $19.07) in 1900. These figures, he holds, are less than the amount actually paid, as the spirits reckoned above are broken down by the dealer and sold diluted, thus realizing more money. While there has been an aggregate improvement in the drink habit of the people in certain ways it shows a serious aspect of the case, for this increased amount is used by a smaller proportion, therefore we have more excessive drinkers. The author notes the changed standpoint of medical men in regard to alcohol within the last few years.

22. **Mortality from Alcohol.**—Vacher's report is entirely statistical, giving the data for the last twenty years, 1881 to 1900. The figures are in some respects rather curious. They show the large proportion of deaths from alcohol occur at an age when men should be at their best and the registrar-general's figures make a rather remarkable contrast between the extremes of mortality in the different parts of Great Britain. From this showing Cornwall seems to be the most temperate section, while Lancashire heads the list of alcoholic mortality.

35. **Differentiation of Eosinophiles.**—Audibert reviews the different points in the differentiation of eosinophiles and the possibilities of error in technic.

36. **Pathogenesis of Sublingual Cysts.**—Cuneo and Veau claim that they were the first to suggest and establish that the sublingual dermoid and mucoid cysts or ranula, called "little frog" also in French and "frog tumor" in German, are the first links in a series of neoplasms that originate in the embryonal clefts. The series, starting with the ranula, includes the moderately malignant mixed parabuccal tumors and terminates in the branchial epitheliomata of the neck which are essentially malignant. The ranula develops from epithelial débris left in the depths of the cleft as the external groove closes. The relations between it and surrounding parts, its evolution and its histology all sustain this view.

37. **Indications for Bottini Operation.**—Desnos thinks that the indications for this operation are along the same lines as for internal urethrotomy. Both aim to remove the obstacles that have developed at the orifice or in the lumen of the passage. On the other hand, perineal prostatectomy bears more analogy to urethrectomy, as its aim is to free the periphery of the passage by removing the masses of pathologic tissue which surround and compress it. The indications for the Bottini operation are therefore slight hypertrophy of the prostate, with the middle lobe protruding into the bladder, or with bars interfering with miction and entailing more or less retention. It is less successful in hypertrophy of the lateral lobes, and is not at all applicable for hypertrophy encircling the outlet of the bladder and the urethra. In these cases of peripheral rather than orificial hypertrophy the result of the Bottini operation is insignificant and far from durable, while total prostatectomy is specially indicated. Infection of the urinary passages is not a contra-indication to the Bottini unless long established, in which case an intervention allowing good drainage, such as perineal prostatectomy, is preferable.

38. **Improved Technic for Spinal Cocainization.**—Nearly all the drawbacks of spinal cocainization can be obviated by using a solution of cocain 2 gm., sodium chlorid .15 gm. in 50 gm. water, as follows: Each quarter of a cubic centimeter contains 1 cg. of cocain. The solution is kept in sealed bulbs containing 1 c.c. The contents of the bulb are aspirated into a syringe with a capacity of 3 c.c. The fluid is then all expelled except the half centimeter that is to be injected. The lumbar puncture is then made and about ten drops of the cerebrospinal fluid are allowed to escape. The syringe is then adjusted to the needle and the cerebrospinal fluid is aspirated into the syringe, where it mixes with the solution of cocain already in the syringe. The whole is then slowly reinjected. No noticeable headache, nausea or hyperthermia were observed with this technic in an experience with 70 subjects. Almost all asked for food at once. A few vomited a little, fifteen minutes after the operation, and 2 had headache that commenced twelve and twenty-four hours afterward, but soon subsided.

39. **Leucocytosis in Infectious Diseases.**—Bezançon and Labbé proclaim that the leucocyte formula in disease is the composite image of the local reactions to the microbes at the primary morbid focus, plus the image of the secondary reactions which occur in the blood-forming organs at a distance. Polynuclear leucocytosis is the reaction manifested by the organism whenever an infection by its acute onset necessitates an early and rapid effort to combat it. This reaction is sufficient in superficial infections caused by germs of moderate resisting power, but it proves inadequate to free the organism of germs which are difficult to destroy. Mononuclear leucocytosis, on the other hand, is a reaction that takes place more slowly, but is more durable in its action and is the only one capable of triumphing over a profound and tenacious infection. Hence it follows that infections causing a polynuclear leucocytosis, which represents merely a slight superficial reactional effort on the part of the organism, are followed by only transient immunity, while the mononuclear infections, which necessitate a prolonged effort on the part of the organism, generally confer a solid and durable immunity. Hyperleucocytosis with polynucleosis is chiefly encountered in the saprophytic affections, in localized inflammations, in suppurations, erysipelas, pneumonia, etc., in diphtheria, gonorrhea and scarlet fever, and is accompanied by hyperfibrinosis. Hyperleucocytosis with mononucleosis is the appanage of specific diseases, such as mumps, whooping cough, syphilis and tuberculosis at certain stages. It is also encountered, with abnormal leucocytes, in variola, varicella, etc. Typhoid conditions, typhoid fever, typhus and malaria, induce leucopenia with relative mononucleosis. The curve of the leucocytosis generally parallels the course of the disease. Return to normal is preceded by certain special modifications in the leucocyte formula, such as mononucleosis, appearance of transitional forms and reappearance of the eosinophiles which disappear during the height of the malady. The various infectious diseases do not have any specific leucocyte formula. The blood formula is merely a symptom, but it is constant and varies little during the course of the disease. Any disturbance in this average pathologic leucocyte formula denotes a serious, abnormal, complicated course, and is thus valuable for the prognosis. Leucopenia is a grave sign. It indicates an insufficiency in the reacting power of the blood-forming organs. Excessive hyperleucocytosis and polynucleosis indicate a violent and stubborn infection necessitating violent reactional effort on the part of the organism.

41. **Operation for Large Genital Prolapses.**—Bouilly's method consists in a high amputation of the hypertrophied and sagging cervix, excision of the superfluous vaginal wall and anterior colporrhaphy and colpoperineorrhaphy. It is a complete and permanent cure of all such cases. The technic is readily comprehended from the eight large cuts.

42. **Ventroscopy Through the Vagina.**—De Ott's communication was reviewed in THE JOURNAL of August 23, and three of the illustrations reproduced.

43. **Primary Tuberculosis of the Cervix.**—There are only 3 cases of primary tuberculosis of the cervix on record, and 2 were autopsy discoveries. Brouha has observed a fourth case. The symptoms were masked by those of a pronounced hemorrhagic interstitial endometritis. The uterus and adnexa were removed by abdominal section as it was impossible to determine the extent of the tubercular lesion in the cervix. The patient has been in fine health since. The cervix was found the seat of an actual tuberculous cavity, funnel shaped, and confined exclusively to the neck. The patient was clinically free from any other tuberculous manifestation then and since. He regards it as a case of ascending tubercular infection, primarily localized in the cervix. The patient's husband had died from pulmonary tuberculosis six years before, and the depth and chronic character of the lesion suggested that the infection dated from several years previously.

44. **Technic of Maydl's Operation for Exstrophy of the Bladder.**—Ten large cuts give a good picture of the various steps of the intervention.

45. **Treatment of a Hernial Anus.**—Pauchet plugs the anus with a tampon and then incises around it to mobilize a collar of skin surrounding the anus. This circle of skin is drawn up over the anus and pinched firmly with forceps like a cover over it. The entire loop of the intestine is then drawn out and the two parts are united by lateral anastomosis, after the portion containing the anus has been cut off and the stumps thermocauterized and closed with a purse-string suture. The patient ingests nothing by the mouth for forty-eight hours, after which he commences on fluid foods, but no milk is given for a week. He describes 4 cases and illustrates the technic.

46. **Hysterectomy for Uterine Cancer.**—Pozzi's address was reviewed in THE JOURNAL of November 1, p. 1146.

47. **Surgical Treatment of Uterine Cancer.**—Jonnesco's article is illustrated with 52 large cuts. He advocates ablation of the uterus and adnexa in case of cancer, removing also the cellulo-fatty tissue of the pelvis, iliac fossæ and lower lumbar regions, with all the lymphatic vessels and ganglia contained in it. The field of operation is drained through the vagina, the long wicks replaced by a short one in twenty-four hours. He proclaims that this thorough evacuation is a rational, possible, benign, easy and effective operation for removal of malignant disease, when the lesion is circumscribed, and it is possible to remove everything and leave none of the cellular tissue and lymph ganglia. The free margin of the pelvic colon is sutured to the iliac and vesical peritoneum to shut off the abdominal cavity. He does not undertake this operation unless the patients are still in comparatively good health. He has operated by this method eighteen times during the last two years. In 10 cases the cancer was circumscribed and the patients recovered rapidly. In 8 the parametrium was already involved, and 3 of the patients have since died. There has been no recurrence in any case.

48. IBID.—Wertheim states that he has examined under the microscope 7000 sections in series of the parametrium and ganglia taken from 80 cases of cancer of the uterus on which he had operated. He found that the malignant disease had already invaded the parametrium in 45, and on both sides in 26. The parts involved were not in direct connection with the uterus. In 55 the cancerous degeneration had reached the outer part of the parametrium. In 11 the foci were entirely independent of the primary neoplasm. The ganglia accompanying the large vessels were found cancerous in 23 cases, on both sides in 4 and in 27 on one side. The involved ganglia were generally isolated, and very seldom was a whole group affected. In 22 cases in which the parametrium had been invaded by the cancer the ganglia were apparently intact, while in 4 in which the latter were affected the parametrium was exempt. In 32 instances both were apparently sound. In short, in 48 out of the 80 cases ablation of the uterus alone would not have removed all the cancerous tissue. He removes the parametrium as close to the walls of the pelvis as possible, drawing the ureters aside. He also resects all the ganglia that show the least trace of enlargement. In 120 operations for uterine cancer his mortality was 12 in the first 30; 5 in the second; 3 in the third and 4 in the fourth. This is a total mortality of 20 per cent., or including only the last three groups, of 13 per cent. He is careful to refrain from isolating the ureters from their nourishing vessels, and he also prepares for the hysterectomy by thorough curettement and cauterization of the cancer, packing the cavity with cotton impregnated with bichlorid. He avoids a tendency to paresis of the bladder later, by fastening its wall, after divesting it from its peritoneum, to the anterior wall of the vagina. This reduces the size of the bladder, and some of his patients have been able to urinate spontaneously from the first day. By operating along these lines he has been encouraged to extend the scope of surgical intervention. At first he operated on only 29 per cent. of all that applied, but in his last two series he has operated on 50 and 52.9 per cent., notwithstanding numerous and serious complications in a number. There has been no recurrence in 77 per cent. of the 13 operated on more than two and one-half years ago.

49 and 50. IBID.—Cullen remarks that with Wertheim's method he does not believe that there is much further progress to be made in the line of operative treatment of cancer of the uterus. He does not approve, however, of the practice of preliminary curettement and cauterization of the lesion as it depresses the vitality of the patient. He prefers Sampson's method of severing the ureter above the infiltration and inserting it in the bladder. He also considers it important to prevent hemorrhage from the vaginal walls by encircling the vagina with deep interrupted catgut sutures before opening the abdomen. This little measure does not require more than five or six minutes, but it prevents the least loss of blood from this threatening source. Freund referred to two of his patients who were free from recurrence now twenty-four years after abdominal removal of a cancerous uterus.

53. **Hysterectomy for Puerperal Infection.**—Treub has had 690 patients with puerperal infection who have recovered and 34 who died. In 6 of the latter number there were no clinical signs of any infection outside of the uterus, but the autopsy disclosed acute septic nephritis, purulent thrombosis or some other serious lesion in all but 2. Consequently out of the total number there were only 2 that might have been saved by a timely hysterectomy. He has collected 36 cases of ablation of the uterus as a means of treating puerperal infection with no extra-uterine localization or uterine complication such as retention of placenta, fibromata, etc. Fifteen out of the 36 recovered and they might have recovered without the hysterectomy as he corroborates by certain cases in his experience which came to a spontaneously favorable termination, although apparently doomed. Bacterial examination of the blood is no criterion. Treub has known cases of pyohemia following criminal abortion which recovered spontaneously, and consequently does not endorse Freund's opinion on this subject. Nor does he agree with Cartledge in his assertion that "non-operative treatment of puerperal infection, if it is going to be successful, will arrest it in three days." Puerperal infection does not go by the clock, he remarks. He also refutes Vineberg's assertion that a pulse of 130 indicates a fatal prognosis, as numbers of his patients who afterwards spontaneously recovered had a higher pulse than this. In short, there are no absolute indications at present for hysterectomy in puerperal infection. In a few exceptional cases it may succeed after obstetrical treatment has completely failed.

54. IBID.—Leopold thinks that antistreptococcus serum or some similar serum may yet prove effective in these cases. He urges careful search for all the foci of suppuration, and is inclined to believe that the extirpation of veins affected with suppuration will yet lead to brilliant successes in some of the severest cases of puerperal infection.

56. **Traumatic Edema.**—Vulliet has observed a number of cases of these lesions of the back of the hand and foot, which are so painful that they prevent the use of the hand and do not subside for eight to twelve weeks in some cases. There is no inflammation, but a fibrous, diffuse exudate between the loose skin and the hard background of the back of the hand or foot, consecutive to trauma. Warm baths are beneficial, but massage has proved injurious. Compressing bandages did not hasten the resolution of the tumor in his experience.

57. **Rectal Prolapse in Infantilismus.**—The rectum was given a new support by the operation in the case described. The walls of the Douglas pouch were sutured together and the sigmoid flexure was pulled to the right. The mesocolon between the two ends of the loop was sutured together, while the intestine was sutured to the periosteum and peritoneum of the sacrum and right pelvic wall on one side, and to the broad ligament and rear peritoneum of the uterus and left pelvic wall on the other side of the loop formed by the intestine. The sagging vaginal wall was taken up by Freund's method of perineal plastics, and later, a wire ring according to Thiersch's method was introduced which healed in place without reaction. The prolapse was thus completely conquered and the conditions have remained normal during the year since.

58. **Spinal Cocainization Without After-Effects.**—Kozlowski reports that in an experience of 32 cases he has avoided all after-effects of spinal cocainization by his technic. A single needle prick, he says, enabled him to perform all operations on the legs and pelvis absolutely free from pain, and with no inconveniences afterward. He uses tropacocain, and puts 5 cg. of the powder in a warm, sterile, graduated dish. He then makes the lumbar puncture and allows the cerebrospinal fluid as it issues to drop on the tropacocain. The latter dissolves readily in the fluid, aided perhaps by slightly shaking the dish. When 5 gm. of the cerebrospinal fluid are thus caught in the dish, the result is a 1 per cent. solution of tropacocain which he then aspirates into the syringe and injects at once. He does not sterilize the tropacocain (Merck's).

60. **Radical Treatment of Congenital Inguinal Hernia in Children.**—Kremm turns the hernial sac wrong side out after reducing the hernia, and sutures the two serous surfaces together, with the cremaster and transverse fascia. This forms a solid cylinder, and he then proceeds as in the ordinary Bassini operation.

62. **Apparatus for Hypodermoclysis.**—The little apparatus which Oliva has found extremely useful in private practice consists of a receptacle for the fluid to be injected, with a long tube terminating in the needle. This tube is enclosed in a larger tube which terminates just below the needle in a right angled branch with faucet. The needle and tube are sterilized before using, and the water in which they are boiled is poured into a fountain syringe, the tube from which runs into the outer tube near the top. It flows through the outer tube and the terminal branch into a receptacle on the floor, or the faucet can be turned to retain the hot water in the outer tube. This warms the fluid to be injected in the inner tube, and keeps it at an even temperature. The needle is enclosed in an adjustable outer shell with a blunt tip which prevents the needle from entering too far or changing its position when once introduced into the vein.

64. **Development of the Placenta.**—Hitschmann's research seems to establish that when the ovum settles on the mucosa of the uterus it penetrates into it and becomes surrounded by a peculiar layer of trophoblasts or ectoblasts which possess the power of invading the veins without interfering with the circulation in them. Coagulation of the blood does not occur, and the blood circulates freely through the spaces between the villi. The process seems to be identical with that of the invasion of malignant chorion-epithelioma. In the latter case this non-interference with the blood current explains the sweeping away of fragments. As the trophoblasts surrounding the ovum penetrate into the vessels, the villi keep pace with them. The career of the trophoblasts is brief, and when it is ended the circulation through the villi is established and continues, but the penetration of the villi into the decidua and the opening up of the vessels cease as soon as the trophoblasts die. The placenta and the ovum grow, but their relation to the maternal tissues remains unaltered after the trophoblast stage is past. The etiology of placenta previa is readily explained by this assumption, as he shows by numerous cuts.

66. **Pregnancy with Rectal Cancer.**—Rossa's is the only case of this kind that has been published, he states, in which the pregnancy terminated spontaneously at term with the delivery of a healthy child. The patient had noticed for two months severe pains localized in the sacrum and buttocks, and difficulty in defecation, but had assumed that they were connected with the pregnancy, and kept the pains under control with morphin. The latter finally lost its efficacy, and she then for the first time allowed an investigation. A carcinomatous stricture was discovered. Fecal masses had collected above it in large amounts; after their evacuation labor proceeded normally with delivery in five hours. She refused an operation for two months longer, by which time the neoplasm had increased considerably in size, but was still circumscribed and was extirpated. All physicians should suspect cancer in case of pains localized in the sacrum and buttocks with difficulty in defecation, and insist on an examination in pregnant women the same as in the non-pregnant. Durable cures can be anticipated when the pregnancy is interrupted at once in such cases and the neoplasm extirpated in its early stages.

68. **Physiologic Albuminuria.**—Leube's article was one of the addresses at the Naturforscher Congress. He proclaims that physiologic albuminuria is merely due to the greater or less porosity of the renal filter in healthy persons. In very rare cases this filter is so porous that it allows the passage of albumin in normal conditions and in the absence of predisposing factors. In other persons this filter is so dense that the albumin never filters through under any circumstances. The third category comprises persons with a moderately porous filter which does not allow the passage of albumin at ordinary times, but under the stress of unusual exertion, emotions, long standing, etc., the congenital porosity of the vascular membrane allows the passage of albumin into the urine. He thinks that this group is much larger than usually recognized. The albuminuria in these conditions is not pathologic and there can be no question of treating it. The subjects are healthy and can lead normal lives. In differentiating it we must exclude cases of subsiding or incipient nephritis, or an insidious interstitial inflammation of the kidney, and also the albuminuria of adolescents. The cause of the latter is principally that the regeneration of the blood and the heart action are unable to keep pace with the rapid growth of the body, and any extra exertion taxing the heart entails intermittent albuminuria. He thinks the term "cyclic albuminuria" should be discarded. This albuminuria of adolescents is not a physiologic albuminuria, but an affection that requires treatment. Avoidance of overexertion, repose, sleep and general hygiene, abundance of wholesome food and avoidance of stimulants and of all substances that might irritate the kidneys, are usually sufficient. There is always a suspicion that the kidneys of such persons may be more predisposed to nephritis than others.

69. **Osmotic Dieting.**—Strauss has been studying whether it may not be possible to influence the osmotic processes in the body by the diet. The results suggest that the polyuria in certain cases of nephritis may be a necessary compensating process. The subjects require a larger amount of water as the vehicle for the normal amount of solid elements. The quantity of water ingested should not be restricted, but the heart should be spared so far as possible all other demands. Retention of salt leads to retention of fluid in some cases of nephritis. The nephritic kidney responds less rapidly and with less intensity in osmotic variations to changes in the diet than a sound kidney. Strauss' research opens up new problems without solving any.

71. **Review of 720 Gallstone Laparotomies.**—The surgical aspect of Kehr's article was reviewed in THE JOURNAL of November 29. In regard to internal treatment he adopts the general opinion that the aim should not be to expel the stones but merely to keep them quiet in the gall bladder and reduce inflammation. This can best be accomplished by a few weeks of hot applications, preferably the thermophore, rest in bed and a course of Carlsbad waters. He does not operate in cases with mild attacks and no sensitiveness of the gall bladder region in the intervals. Acute occlusion of the bile duct should usually be treated medically until the strength and appetite decline as the cholangitic phenomena predominate and the icterus persists. Icterus with evacuation of stones at each attack, belongs to the internists, as also the rare cases of sterile hydrops, so long as it does not cause trouble. When the colics have led to morphin addiction operation should be done, as also in chronic occlusion of the bile duct, and without delay. He has operated 1131 times during the last twelve years, and 536 of his 655 patients were women. Men, especially fat men, bear the intervention poorly. Women who have borne children are the best subjects. The gallstone affection was complicated by stomach trouble in 12 per cent. He urges internists to be present occasionally at gallstone operations.

72. **Vibration Massage to Hasten Expulsion of Kidney Stones.**—Klemperer states that in 6 out of 10 cases of renal colic expulsion of the stone followed the application of vibration massage to the affected side. The procedure usually induced a fresh attack of colic, which terminated in the passage of the stone.

77. **Arsenical Neuritis.**—Janowski concludes from his experience with 3 cases and 129 in the literature that arsenical neuritis has a tendency to spontaneous retrogression. Patience on the part of physician and patient is needed. Early active treatment can do only harm. Electricity is strictly contraindicated in the first and second stages, but after the subsidence of all pains and recovery from muscular atrophy, it can be cautiously applied with massage, baths and passive gymnastics. The greatest relief at first was obtained from large hot compresses applied to the entire extremity, with potassium iodid. Morphin should be used with great caution.

79. **Hemorrhage from Erosions in the Stomach.**—In both of the cases described by Mintz vomiting was the predominant symptom. It simulated nervous vomiting and was treated six months on this assumption, but without results, until particles of mucosa and blood were discovered in the vomited matters. The trouble can be differentiated sometimes only by the constant finding of scraps, which the microscope shows to be particles of gastric glands. Isolated fragments may occur sporadically in the healthy stomach contents, but their constant recurrence differentiates the erosion. His patients were young women of leisure, whom he treated with lavage of the stomach with a 1 or 2 per 1000 solution of silver nitrate, after copious rinsing, and large doses of bismuth. If the silver lavage is ineffectual the patient should be given a course of treatment as for a gastric ulcer, with general tonic and hygienic measures. One patient recovered after 10 silver lavages. The vomiting occurred during or soon after meals, and there was no pain. Traces of blood in the vomit after six months suggested the true diagnosis.

81. **Periodical Neurasthenia.**—Pulawski has witnessed 9 cases of this affection which should rather be called periodical exacerbations of a chronic neurasthenia. These exacerbations may last from one hour to a month or longer. They were characterized by depression in his experience. The prognosis seems to be less favorable than in ordinary neurasthenia.

86. **Methylene Blue Test of Kidney Functions.**—Landau found the results of this test unimportant in 24 subjects on whom it was applied. It can not be relied on alone as a criterion of the functional capacity of the kidneys. Another point to be borne in mind also is that the blue has to be transformed into chromogen, etc., before it can be eliminated through the kidneys. Consequently its elimination depends on this transforming function as much or more, possibly, as on the eliminating capacity of the kidney.

88. **Influence of Alcohol on Circulation.**—The writer's research fails to show any stimulating action of alcohol on the circulation of blood. The effect was rather to weaken the entire circulatory system.

89. **Cultivation of Virus of Variola.**—Ishigami announces that all attempts to inoculate animals with pure cultures of bacteria found in variolous and vaccine lymph, etc., proved negative. But he found that he could induce the production of typical vaccine pustules and protective power against variola by inoculating calves with a culture of the protozoa found in the epithelial cells of the vaccine pustules, lymph, etc. These sporozoa grow best on a culture medium made from the epithelial cells of an unvaccinated animal. He claims that the evidence is all in favor of the assumption that these sporozoa are the causal germs of variola.

90. **Peculiar Neurosis in Japan.**—Sakaki gives cuts showing the attitudes and general aspect of the subjects of this neurosis which is characterized by echolalia, echomimia and echokinesia with abnormal tendency to fright. There are no tics, grimaces nor obsessions. It is probably identical with the neurosis observed by Tokansky in Russia and described in the *Neur. Cbl.*, ix, p. 662.

91. **Tuberculosis of the Pharynx.**—Kanasugi regards the prognosis of this localization of tuberculosis as the most unfavorable of all, the primary more than the secondary. He curettes into sound tissue and applies pure lactic acid.

92. **Prophylaxis of Malaria in Formosa.**—Koike states that the strict discipline of the Japanese army rendered possible the application of antimosquito measures on a large scale in this hotbed of malaria. The results, in his own words, were "so excellent as we scarcely heard ever." The barracks were screened and the beds provided with nets. The soldiers were obliged to be in the barracks half an hour before sunset, and the door was locked until half an hour after sunrise. No night duty was required of the corps to which these measures were applied. When any one was known to have been bitten by a mosquito he was removed to an isolated bed and net. The sentinels wore woolen trousers, gloves and mask. All bathing had to be done during the day. Not one of the 114 men in this corps contracted malaria, but a control corps, unprotected, had 32.59 per cent. affected, while 44.09 per cent. of the general force of nearly 700 men had malaria. The prophylactic measures were continued from September to February, and the soldiers were so impressed with the results that they have voluntarily continued the same precautions since, and other companies have begged to be thus protected.

93. **Stored Rice and Beri-Beri.**—This article asserts that beri-beri causes more than two-thirds of all deaths among the Chinese, and it is continually spreading among the Malays and Chinese. When the Malay grew and garnered his own rice he hulled the daily supply as needed, and beri-beri was unknown. But now imported rice is sold at such low prices that he prefers to buy it and save the trouble of cultivating rice. Beri-beri follows in the track of this imported and stored product.

95. **Reducing Luxation of the Humerus.**—Maarud has been much impressed with the value of Riedel's method for country practitioners as it dispenses with assistance and requires such brief narcosis.

96. **Dispensing in Country Practice.**—Bugge holds up to his country men the example of America in regard to the dispensing of medicine in tablets, etc., instead of the old-fashioned methods to which they still cling.

99. **Reducing Luxatio Ant. Humeri.**—Borchgrevink recommends a method of reducing this luxation based on the principle that when the arm is adducted, the upper wall of the capsule, and especially the coraco-humeral ligament is stretched, which prevents the head from rotating on its axis at that point and compels it to turn toward the cavity of the joint. As the arm is raised the coraco-humeral ligament and the edge of the rent in the capsule become relaxed, while the lower wall of the capsule is drawn taut, and this forces the head near or into its normal position. If it is not already entirely in place, inward rotation will bring it completely into its normal relations. The operation described is in four stages. The dislocated arm is first placed in extreme adduction. The upper arm is then slowly and cautiously twisted over and outward in this position, the elbow still at a right angle, until the front of the arm is in the frontal plane. While this outward rotation is maintained, the upper arm is raised in the sagittal plane to the extent that is possible without application of force. The arm is then rotated inward and the head of the humerus will be found in its cavity.

New Patents.

Patents of interest to physicians, etc., November 4 and 11:

712634. Exercising apparatus. Richard Aronstein, Goldfield, Colo.
712642. Device for administering anesthetics. Albert H. Bishop, Fort Dodge, Iowa.
712643. Device for administering anesthetics. Albert H. Bishop, Fort Dodge, Iowa.
712827. Exercising apparatus. George S. Maxwell, Jersey City, and G. White, Jr., Madison, N. J.
712700. Bed pan. Christian W. Meinecke, Jersey City, N. J., and D. Hogan, New York.
712711. Truss. Eugene J. O'Conor, Westport, New Zealand.
712719. Optical instrument for testing the eyes. Gilbert B. Porter, St. Johns, Mich.
713017. Syringe. Walter H. Pumphrey, New York.
712720. Air bed. Fannie L. Richardson, Corinth, Miss.
712979. Inhaler. Clarence W. Taylor, Sioux City, Iowa.
712989. Electric cautery. Wm. E. Washburn, Cedar Rapids, Iowa.
712746. Sterilizing apparatus. Adolf Watorck, Lemberg, Austria-Hungary.
713395. Separating proteids from non-nitrogenous bodies. John Carstairs, Bradford, England.

713416. Invalid bed and commode. Wm. C. Feely, New York.
713450. Hernial truss. Charles E. Kenyon, New York.
713318. Suspensory bandage. Henry C. Lovis, New York.
713234. Stopper for hot-water bags. Edward E. Menges, New Haven, Conn.
713488. Vaccination shield. Nils Omsted and M. Iverson, Stoughton, Wis.
713143. Adjustable pliable truss. Wm. Payne, London, Canada.
713348. Retinoscope. Seth A. Rhodes, Chicago.
713515. Apparatus for producing medicinal vapor or liquid from the smoke of green wood. Hamilton E. Smith, Philadelphia.
723166. Obstetrical tractor. Emilien D. St. Cyr, Chicago.
713530. Case for surgical instruments. Charles J. Tagliabue, Brooklyn.
713365. Electromagnetic medical appliance. Francis H. Volley, Allegheny, Pa.

The Public Service.

Army Changes.

Movements of Officers of the Medical Department, U. S. Army, by orders from the Adjutant-General's Office, Washington, D. C., from November 15 to 20, inclusive.

Brewer, Isaac W., contract surgeon, U. S. A., now in this city, will proceed to Fort Huachuca, Ariz., and report in person to the commanding officer of that post for duty.

Cable, George W., contract surgeon, U. S. A., leave of absence granted in Special Order No. 177, Sept. 25, 1902, Department of Texas, is extended one month.

Dale, Frederick A., first lieut. and asst.-surgeon, U. S. A., now at San Francisco, is relieved from further duty in the Division of the Philippines and from duty as transport surgeon on the transport *Sumner*, and will proceed to this city and report in person to the commanding officer of the U. S. General Hospital, Washington Barracks, for duty.

Eber, Albert H., captain and asst.-surgeon, U. S. Vols., is honorably discharged from the service of the United States by the Secretary of War, to take effect Dec. 31, 1902.

Eber, Albert H., captain and asst.-surgeon, U. S. Vols., is granted leave of absence to include Dec. 31, 1902.

Glennan, James D., surgeon U. S. A., is granted leave of absence for one month, to take effect on his relief from duty at the U. S. Military Academy.

Henderson, Albert B., first lieut., asst.-surgeon, U. S. A., is directed by the Secretary of War to report in person to Brigadier-General Frederick Funston, U. S. A., president of the Army Retiring Board, appointed to meet at Denver, at such time as he may designate, for examination by the board. On the completion of his examination Lieutenant Henderson will return to the place of receipt by him of this order.

Long, Stephen M., contract surgeon, U. S. A., is relieved from duty at Alcatraz Island, Cal., and will proceed to Fort Duchesne, Utah, and report in person to the commanding officer of that post for duty and by letter to the commanding general, Department of the Colorado.

Lyon, Palmer H., captain and asst.-surgeon, U. S. Vols., now serving in the Division of the Philippines, is honorably discharged by the Secretary of War, from the service of the United States, to take effect Dec. 31, 1902, his services being no longer required.

Madara, James W., captain and asst.-surgeon, U. S. Vols., now serving in the Division of the Philippines, is honorably discharged by the Secretary of War from the service of the United States, to take effect Nov. 21, 1902, his services being no longer required.

Mabry, William C., contract surgeon, U. S. A., is granted six days' leave of absence.

McAndrew, Patrick H., first lieutenant and asst.-surgeon, U. S. A., is relieved from duty in the Division of the Philippines, and will proceed to San Francisco, and on arrival report by telegraph to the Adjutant-General of the Army for further orders.

McCaw, Walter D., major and surgeon, U. S. A., is detailed to represent the Medical Department of the Army at the General Sanitary Convention of American Republics, to meet in this city Dec. 2, 1902.

Rockhill, Edward P., first lieut. and asst.-surgeon, U. S. A., is detailed as a member of the examining board convened at the Presidio of San Francisco, by Paragraph 9, Special Order No. 207, Sept. 9, 1902, vice Captain John S. Kulp, asst.-surgeon, hereby relieved.

Sinks, Edward D., contract surgeon, U. S. A., now at the U. S. General Hospital, Fort Bayard, N. M., will report in person to the commanding officer of that hospital for duty.

Navy Changes.

Changes in the Medical Corps of the U. S. Navy, for the week ending Nov. 22, 1902:

Surgeon W. R. DuBose, ordered to the Navy Yard, League Island, Pa., for duty in connection with fitting out the *Maine*, and ordered to the *Maine*, when that vessel is placed in commission.

P. A. Surgeon T. W. Richards, detached from the bureau of medicine and surgery, Navy Department, and ordered to the *Arkansas*.

P. A. Surgeon E. O. Huntington, unexpired portion of sick leave revoked; ordered to the Naval Hospital, New York City, for treatment.

P. A. Surgeon W. H. Bucher, sick leave extending one month.

Orders received from senior squadron commander of Asiatic Station.—P. A. Surgeon E. M. Shipp, detached from duty at Port Isabela, P. I., and ordered to the Naval Station, Cavite, P. I.

Asst.-Surgeon C. M. Oman, detached from the Naval Station, Cavite, P. I., and ordered to duty at Port Isabela, P. I.

Pharmacist C. McLarty, reported at the Navy Yard, Norfolk, Va., October 7.

Marine-Hospital Changes.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the Public Health and Marine-Hospital Service for the seven days ended Nov. 20, 1902:

Assistant Surgeon-General J. H. White, granted seven days' extension of leave of absence from November 24.

P. A. Surgeon L. E. Cofer, department letter granting leave of absence amended so that said leave shall be effective up to and including December 10.

P. A. Surgeon S. B. Grubbs, granted leave of absence for one month from December 8.

Asst.-Surgeon L. D. Fricks, relieved from duty at Savannah, Ga., and directed to proceed to Cape Fear Quarantine Station, and assume temporary command, relieving Asst.-Surgeon T. B. McClintic.

Asst.-Surgeon V. G. Heiser, to report to Assistant Surgeon-General L. L. Williams, chairman of Board of Examiners, for examination to determine his fitness for promotion to the grade of passed assistant-surgeon.

Asst.-Surgeon T. B. McClintic, on being relieved from duty at Cape Fear Quarantine Station, to proceed to Washington, D. C., and report to the director of the Hygienic Laboratory for duty.

Asst.-Surgeon W. A. Korn, leave of absence granted for 21 days from November 18, revoked.

Asst.-Surgeon T. D. Berry, department letter granting leave of absence on account of sickness, amended so that it shall be for one month and 27 days.

Asst.-Surgeon Edward Francis, to proceed to New York City for special temporary duty.

Asst.-Surgeon W. C. Rucker, relieved from duty at San Francisco, and directed to proceed to Reedy Island Quarantine Station and report to medical officer in command for duty and assignment to quarters.

A. A. Surgeon P. N. Barnesby, granted leave of absence for 21 days from November 10.

A. A. Surgeon L. P. Gibson, granted leave of absence for 10 days from Nov. 12, 1902, on account of sickness.

BOARDS CONVENED.

Board convened at Washington, D. C., Nov. 18, 1902, for the examination of Asst.-Surgeon V. G. Heiser to determine his fitness for promotion to the grade of passed assistant surgeon. Detail for the Board: Assistant Surgeon-General L. L. Williams, chairman; Assistant Surgeon-General G. T. Vaughan; Assistant Surgeon-General H. D. Geddings, recorder.

Board convened at the Marine-Hospital, San Francisco, Nov. 24, 1902, for the physical examination of a candidate for appointment as second assistant-engineer, Revenue Cutter Service. Detail for the Board: P. A. Surgeon W. G. Stimpson, chairman; P. A. Surgeon A. R. Thomas, recorder.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, Public Health and Marine-Hospital Service, during the week ended Nov. 22, 1902:

SMALLPOX—UNITED STATES.

California: San Francisco, Nov. 2-9, 2 cases; Stockton, Oct. 1-31, 3 cases; Stockton, Nov. 1-13, 1 case.
Colorado: Denver, Nov. 1-8, 7 cases.
Indiana: Indianapolis, Nov. 8-15, 2 cases.
Kansas: Wichita, Nov. 8-15, 1 case.
Louisiana: New Orleans, Nov. 8-15, 1 case.
Maine: Nov. 8-15, Biddeford, 3 cases; Portland, 1 case.
Massachusetts: Boston, Nov. 8-15, 20 cases, 2 deaths; Cambridge, Nov. 8-15, 1 case, 1 death; Marlboro, Nov. 1-15, 7 cases; Taunton, Nov. 8-15, 1 case; Weymouth, Nov. 8-15, 1 case; Worcester, Nov. 7-14, 1 case.
Michigan: Nov. 8-15, Detroit, 31 cases; Grand Rapids, 6 cases.
New Hampshire: Nov. 8-15, Manchester, 2 cases; Nashua, 16 cases.
New Jersey: Nov. 8-15, Camden, 3 cases; Newark, 1 case.
New York: New York, Nov. 8-15, 2 cases.
Ohio: Cincinnati, Nov. 7-14, 3 cases; Cleveland, Nov. 8-15, 21 cases, 4 deaths; Dayton, Nov. 8-15, 3 cases; Youngstown, Nov. 1-8, 1 case.
Pennsylvania: Altoona, Nov. 10-17, 3 cases; Erie, Nov. 8-15, 4 cases; Johnstown, Nov. 8-15, 5 cases; McKeesport, Nov. 8-15, 4 cases; Philadelphia, Nov. 8-15, 3 cases; Pittsburg, Nov. 8-15, 25 cases, 7 deaths.
Utah: Salt Lake City, Nov. 8-15, 1 case.
Wisconsin: Milwaukee, Nov. 8-15, 10 cases.

SMALLPOX—FOREIGN.

Barbadoes: Oct. 13-25, 146 cases.
Austria: Prague, Oct. 25-Nov. 1, 14 cases.
France: La Rochelle, Oct. 19-26, 1 death; Rheims, Oct. 19-Nov. 2, 1 case, 1 death; Roubaix, Oct. 1-31, 1 death.
Great Britain: Leeds, Oct. 25-Nov. 8, 3 cases; Liverpool, Oct. 25-Nov. 1, 3 cases; Manchester, Oct. 25-Nov. 1, 1 case.
India: Bombay, Oct. 7-21, 6 cases; Calcutta, Sept. 27-Oct. 18, 1 case; Madras, Oct. 4-10, 1 death.
Italy: Milan, Sept. 1-30, 1 case; Palermo, Oct. 18-Nov. 1, 2 cases.
Russia: Moscow, Oct. 18-25, 1 death.
Straits Settlements: Singapore, Sept. 20-27, 6 deaths.
Turkey: Constantinople, Oct. 19-Nov. 2, 2 cases.

YELLOW FEVER.

Colombia: Panama, Nov. 3-10, 4 cases.
Mexico: Nov. 1-8, Coatzacoalcos, 2 cases, 1 death; Tampico, 7 deaths; Vera Cruz, 10 cases, 6 deaths.

CHOLERA—INSULAR.

Philippine Islands: Sept. 21-27, Manila, 43 cases, 36 deaths; Provinces, 5,583 cases, 3,560 deaths.

CHOLERA—FOREIGN.

China: New Chwang, Sept. 13-20, 25 cases, 25 deaths.
India: Bombay, Oct. 7-21, 2 deaths; Calcutta, Sept. 27-Oct. 18, 47 deaths.
Japan: Kobe, Oct. 11-18, 24 cases, 12 deaths; Nagasaki, Oct. 11-20, 61 cases, 41 deaths.
Java: Batavia, Sept. 27-Oct. 4, 42 cases, 38 deaths.
Straits Settlements: Singapore, Sept. 21-27, 22 deaths.

PLAGUE—FOREIGN.

China: Hongkong, Oct. 4-11, 1 case, 1 death.
India: Bombay, Oct. 7-21, 142 deaths; Calcutta, Sept. 27-Oct. 18, 25 deaths; Karachi, Oct. 12-19, 13 cases, 9 deaths.